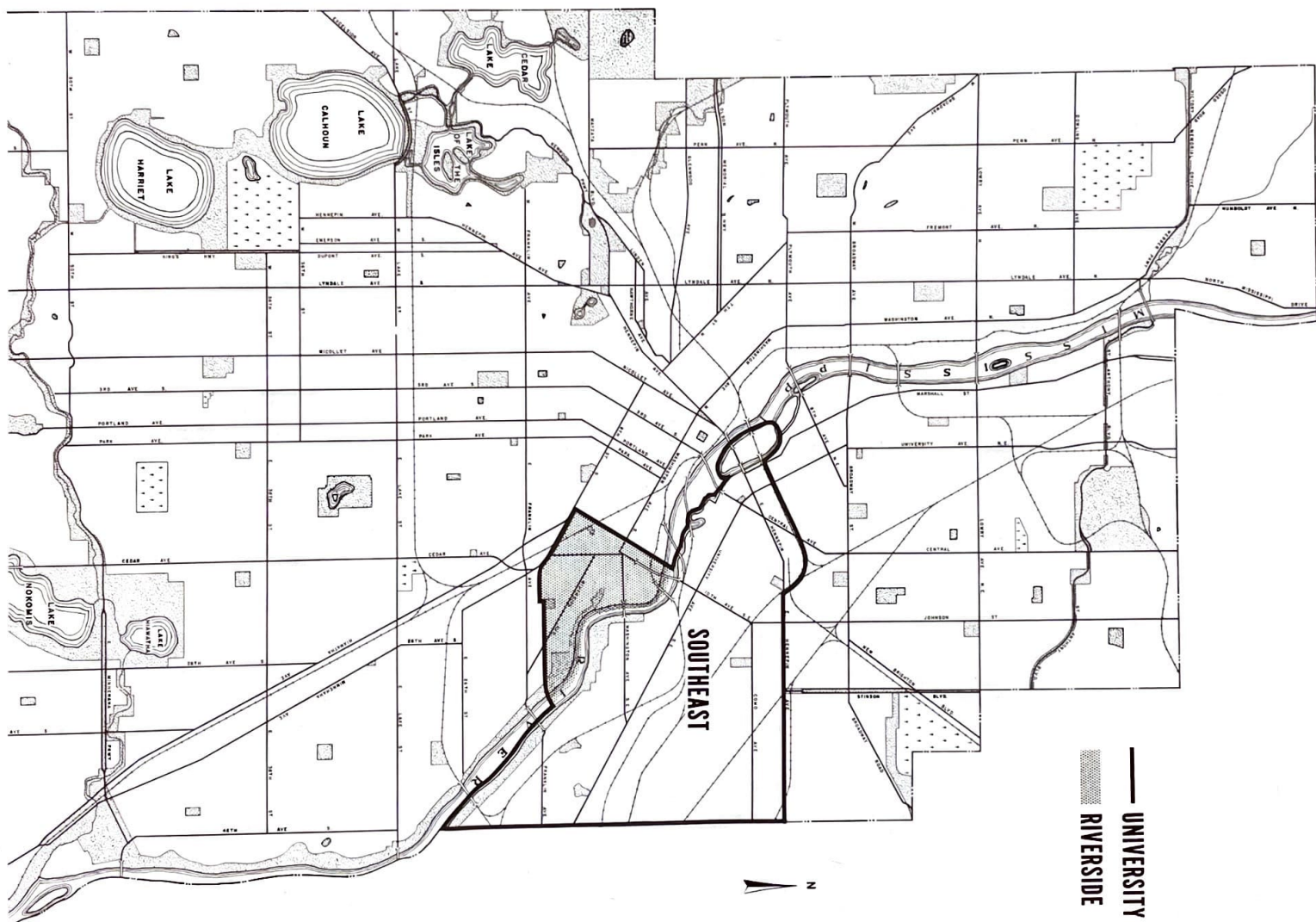


RIVERSIDE

The Next Twenty Years





ABOUT THIS REPORT

This report, produced after ten months of intensive analysis and Neighborhood discussion, represents a major mid-point in the development of a comprehensive plan for Riverside Neighborhood. Upon authorization for public release, the Staff will actively engage in presentation and discussion of this preliminary plan report and supporting materials with other agencies, community groups, and others concerned about the future of rapidly-changing Riverside.

The presentation and discussion period represents the seventh stage in the eleven-step procedure for plan and program making. The process begins with Planning Commission authorization to begin work and continues through work program preparation; inventory; analysis; discussion by the Commission, other agencies, and community groups; definition of goals based on the preceding discussions; preparation of a preliminary plan report by the Commission staff; a period of discussion by the Commission, other agencies, community groups, and individuals; adjustment of preliminary plan and program when the Commission determines it to be warranted; holding of a public Planning Commission hearing on proposed plan and program as required by State Law; Commission adoption, modification, or rejection of proposed plan and program; benefit evaluation and continuing review of plan, program, and implementation.

Staff members have attended over forty meetings of concerned citizens both to assist in the clarification of Neighborhood goals and to present and discuss the Neighborhood Analysis Report (Riverside -- Challenge and Opportunity). These discussions have aided in clarifying the present status and potential of Riverside. There is a general consensus, not present five years ago, both as to the Cedar-Riverside Area Council's goals statement presented on pages 14-16 and as to the need for action to meet present and future needs. This report is intended to provide a basis for continued discussions leading toward the taking of actions that will result in the rebirth of Riverside as a vital, fully-functioning neighborhood.

As the planning and development process proceeds and the response to this report from all concerned is fed back into the planning process, it is necessary that the major institutions in the Neighborhood make firm plans regarding elements that are vital to the development of Riverside. Although the major institutions are presently involved in rational planning for their future, a number of answers to critical questions influencing the future of Riverside are not yet available and should be supplied prior to the adoption of a plan and implementation program for Riverside Neighborhood.

Lawrence M. Irvin, AIP
Planning Director

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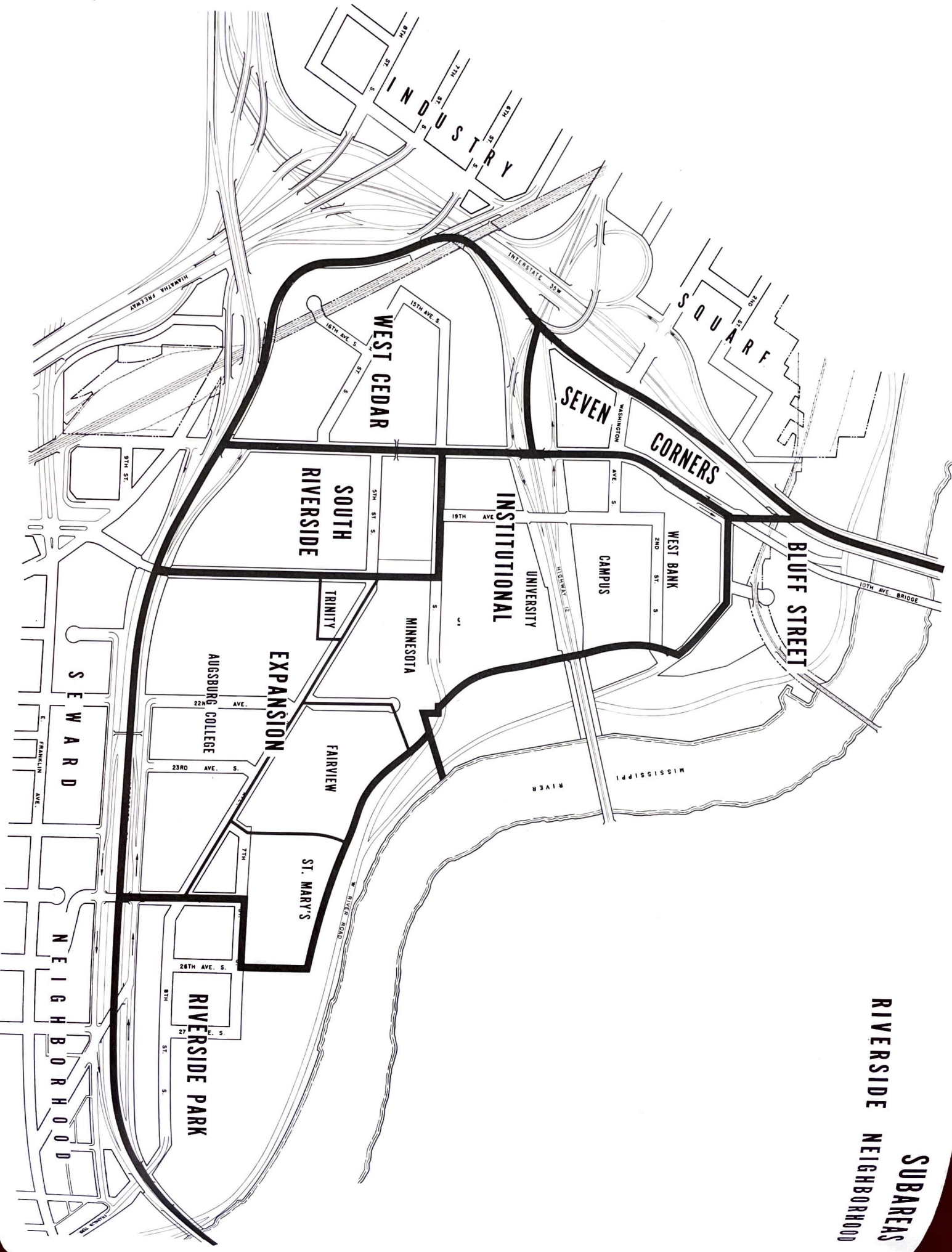
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**SUBAREAS
RIVERSIDE
NEIGHBORHOOD**



FORCES AFFECTING RIVERSIDE

Riverside is affected, with generally increasing degrees of directness, by world tendencies, national trends, regional forces, metropolitan area developments, and Minneapolis change.

The most important and direct impact will come from growth, decline, and change in the City, the metropolitan area, and the region. A brief discussion of the major forces at work will aid in a clearer understanding of the potential of Riverside.

A. NATIONAL TRENDS

Important and far-reaching national trends, although indirect, will continue to affect Riverside. Population growth, increasing urbanization, continued economic growth and continuing technological change will be most important.

Population growth

Census estimates place the current United States population at 196 million persons, which represents an increase of about 15 million persons since the 1960 Census. The birth rate has fallen somewhat since the 1950's; however, population is still increasing by about 2.5 million persons per year. The first members of the post-war baby boom have been reaching college and marriage age during the past few years and will continue to do so during the next

decade. This coming of age will result in the continued production of a large number of children in spite of the recent reduction in birth rates, and therefore a continuing increase in the demand for higher education facilities.

Urbanization

The United States is a predominantly urban nation with three-fourths of its population living in urban areas. During the first fifty years of this century, the growth of urban areas was due, in large part, at first to immigration and later to migration from rural to urban areas. Since the Second World War, rural-to-urban migration has continued; however, natural increase of the urban population, through an excess of births over deaths, is now a large factor in the continuing growth of urban areas.

Indications are that the proportion of United States population living in urban areas will continue to increase and that somewhat over half of the urban population will live in the suburbs if current trends continue. Lower income population, including migrants from rural areas, will probably be a large proportion of population in central cities unless the cities undergo a renaissance which yields a desirable and livable environment that attracts middle and higher income population.

Economic Growth

The nation has been enjoying continuous economic growth and expansion for almost five years. Continued growth will depend upon continued innovation and intelligent action by business in production and by government in underwriting the economy. Unless growth is stopped, increased productivity and higher national income should result in higher per capita income and increased leisure time.

The availability of increased leisure time and more income will result in an increase in demand for recreational and cultural facilities of many types -- in the home, the neighborhood, the municipality, the region, or in faraway places. There will also be demand for better housing, transportation, education, public facilities, and public services as the economy grows and technology improves.

Technological Change

Technological change includes all innovations in processes, techniques, and equipment that make for the more efficient provision of new or existing goods and services. Technological change has been a significant force in the development of civilizations, beginning with the first use of tools by men and continuing through the most sophisticated of current production and control techniques. Recent developments, such as automation and com-

puterization, promise to alter the economic, social, and physical environment of America. Technology will make it increasingly possible to alter the environment as desired when the technically possible becomes economically, politically, and socially feasible and when we reach a consensus as to the desirable environment. The application of technology has not resulted in an altogether desirable environment in the past, and it will not in the future unless its application is guided through rational planning toward the achievement of desired goals.

B. STATE AND REGIONAL FORCES

Riverside will be affected directly and intensively by forces presently at work in the State or region. Work done during the last few years for the Upper Midwest Research and Development Council provides data on the past performance and findings as to the prospects for growth in the Upper Midwest. The major finding of the Upper Midwest Economic Study is that, although opportunities are available, economic growth in the region and in Minnesota is not occurring rapidly enough to provide sufficient, competitive jobs for the young people growing up and being educated in the region. At the same time, the lack of some specific education programs means that people with some specialized skills have to be drawn into the region from elsewhere.

the economic growth of the iron and steel industry, and social consensus. The application of these findings in the past, less its national planning goals.

ly and at work during the Midwest provides findings of the that, alone, economic development in the young population of the lack of means that is have to elsewhere.

Population

The Upper Midwest population would increase even more rapidly than it has or probably will if it were not for the continued drain of population migrating to other areas. This out-migration is concentrated in the most productive age group (25-45 years of age). The shrinkage of the productive age group is unfortunate because it increases the per capita share of the cost of supporting the less productive under-25 and over-64 population. A recent report shows that out-migration from Minnesota during 1960-64 occurred about three times more rapidly (by about 40,000 persons) than previous trends indicated.¹

Another existing migration pattern is the movement of young people (18-25) from rural areas and towns to the larger urban centers in search of continued education and jobs. A large proportion of this group comes to Minneapolis. The University of Minnesota, being the major undergraduate and virtually the only post-graduate educational facility in the region, attracts an increasing number of young people to the Twin Cities.

Economy

Continuing technological change increases the need for highly educated workers, which in turn requires increased educational facilities. Several recent studies have

shown that the Upper Midwest should concentrate on high-skill technological industries if it is to achieve its share of the Nation's economic growth.² These industries, in other parts of the country, have located within easy commuting distance of research centers such as the University of Minnesota. They need the interchange of ideas and the opportunity for post-graduate education and teaching for staff members. All of which means that if the region, and Minnesota in particular, is to ever achieve its proportionate share of national growth and income, the University of Minnesota will be largely responsible. It will not only provide the facilities, atmosphere, and opportunities required by technological industry, but also the trained manpower or human capital which is vital to technological growth.

C. METROPOLITAN AREA GROWTH

Riverside is and will continue to be directly affected by a number of changes in the Twin Cities metropolitan area.

Population

With 1.5 million persons in 1960, the Twin Cities formed the 14th largest metropolitan area in the nation. Population estimates by the Twin Cities Metropolitan Planning Commission foresee a population of two million by 1970, two and one-half million

2. Manufacturing Costs and Comparative Advan-

tage of United States Regions, Upper Midwest Economic Study, Minneapolis, 1963; Technological Industry in the Upper Midwest, Upper Midwest Economic Study, Minneapolis, 1964, pp. ii, iii.

1. Current Economic Progress Report for

THE UPPER MIDWEST, 1964, Upper Midwest Research and Development Council, Minneapolis, 1965, p.3,8

by 1980, and four million by the year 2000. In the absence of radical change in conditions, metropolitan area population will probably double in the next twenty-five years. This will require a doubling of housing, jobs, public services, and a more than doubling of college facilities.

Most of the growth will, because of a lack of space, occur outside the central cities unless living patterns change considerably. Continued decentralization will put increasing pressure on the circulation system of the area, particularly in the central cities.

Circulation system

The worsening of traffic congestion on area streets, due to increased population and more widespread use of the auto, has led to the development of a freeway system in an attempt to meet circulation needs. It has become apparent that any feasible system of freeways cannot meet the total circulation need as the population of the area doubles and triples. Continued growth will make it highly desirable that major traffic generators, such as the downtowns and the University, be served by some effective form of transit in order to minimize the need for expensive and space-consuming freeways and parking spaces. The effectiveness of such mass transit would require a greater guidance of metropolitan development such as is now under study by the Joint Program.

Riverside, which is bordered on two sides by the freeway, could be choked by traffic entering and leaving the freeway at the four interchanges in the area unless internal circulation is very carefully worked out and unless transit can serve part of the commuting population using the facilities in Riverside. The eventual necessity for transit service indicates that provision should be made now to allow transit to serve Riverside in the future.

Economic growth

The economic well-being of the Twin Cities area is inseparably linked with that of the Upper Midwest region. The Twin Cities will remain the major center of the region and actions taken here will vitally affect the remainder of the region. As mentioned earlier, the best opportunity for securing a proportionate share of national economic activity, population growth, and income lies in the development and expansion of technological industry and its vital component -- brain power. Anything that can be done to enhance the "brain industry" will result in increased economic well-being for the entire area and region.

D. MINNEAPOLIS CHANGE

Many of the forces acting to change the character and environment of Minneapolis have both direct and indirect effect upon Riverside. Some of the major forces for change are discussed briefly in this section.

Population

Changes in the composition of population have far-reaching implications for the City. The decrease in the number and percentage of the City population in the basic-support group (age 25-64) and the accompanying increase in children, young adults, and senior citizens means that fewer people are sharing in the support of facilities and services for a larger dependent population. This change in the basic-support group has been particularly intensive in Riverside.

The distribution of families by income has changed. The middle- and upper-income families have tended to locate in the suburban environment while the lower-income families have become concentrated in the central municipal city. Within the City, the lower-income group is generally concentrated in the older sections near downtown. This is one of the reasons for the long-term decline of close-in business centers such as East Hennepin and Seven Corners-Cedar.

Competition

Central cities all across the country are being subjected to effective competition by their suburbs. Minneapolis is no exception. Suburbs in the area are successfully attracting a substantial and increasing proportion of the middle- and upper-income population and housing, industrial development, retail sales, and employment.

Competition for the higher-income groups and retail sales has had the effect of reducing the will to renew Riverside. The ready availability of more attractive facilities has drained the sense of urgency for renewal and fostered an extremely cautious attitude toward methods for regaining a share of the market. However, the City can attract a share of higher-income residents by providing an appropriate environment. Commercial activities can increase their share of sales by supporting the renewal of residential areas in the City and by eliminating disadvantages such as obsolete facilities and layouts, poor parking, inconvenient access, poor loading facilities, disadvantageous relationships among establishments, and lack of expansion space. The alternative is de facto abandonment of competition and dependence upon a limited, captive market. Much has been and will be done in downtown Minneapolis; however, concerted efforts are needed in other nondowntown commercial areas to make them more competitive and productive.

Neighborhood renewal

A Ford Foundation report pointed out that "10% of the population in the United States or seventeen million people, mostly in urban areas, live in houses beyond rehabilitation. Additional millions live in houses that are decayed, rat-infested, and without adequate heat, light, or plumbing..." Clearly, economic progress alone does not cure these evils, and our local governments have not been able to do the job alone. Congress, therefore, enacted the 1949 housing act for slum clearance and for the redevelopment program and also the 1954 housing act for a comprehensive renewal program, including rehabilitation and conservation of properties. "A decent home in a suitable living environment" is the goal behind these housing acts.

Minneapolis is a young city in contrast to some of the older and larger eastern metropolises. But relative youth is no cause for complacency. The Minneapolis C.I.P. Study shows that more than 8,000 acres, or 23 percent of the city, need improvement to be returned to sound, healthy condition. No city stands still; it either renews itself continuously or deteriorates with age.

The City Council recognizes the need for continuous private and public renewal effort. It started the program through the Housing and Redevelopment Authority and the City Planning Commission. Beginning

with the Glenwood area, the program extended to include the Gateway area as well. The results are already visible; a dynamic downtown and a far better living environment. Those renewal efforts now extend to Harrison, Seward, Grant, and St. Anthony neighborhoods, where dilapidated structures will be cleared, deteriorating buildings rehabilitated, and sound houses preserved.

The efforts in the Seward Neighborhood, directly south, are of particular importance to Riverside. The program in Seward will include:

- Clearing out dilapidated structures so that sound structures (75 percent of the total structures) may be preserved and enhanced.
- Some new housing for all age groups including senior citizens.
- A new Seward school-park for the neighborhood.
- Street and utility improvements.
- Some new stores to strengthen shopping facilities.
- Adjustment of street patterns to improve circulation in the neighborhood.
- A limited amount of land to be made available for light industry.

After rehabilitation Seward will be an area with decent, healthful housing in a suitable environment. Many institutional staff, faculty, and students, as well as other citizens, may find Seward a convenient and desirable area for living.

The remainder of the University Community -- Southeast -- is also important to Riverside. Southeast has some of the same problems and opportunities that face Riverside. In view of their overlapping interests, the citizens of Riverside, Seward, and Southeast should work in close relationship to assure the most beneficial future for their neighborhoods.

Another area of importance to Riverside is Industry Square which is located immediately across Interstate 35W between Riverside and downtown Minneapolis. If presently under-developed and sub-standard property could be developed in accordance with the principles described in the plan for Industry Square, the necessary space could be provided, in an appropriate location, for the expansion and introduction of technological industries needed in our economy.³ Such a development would increase the potential demand by industrial employees for housing in Riverside.

3. For a detailed description of specific planning principles see Industry Square in Downtown Minneapolis plan report, Publication No. 135, Winter 1961-62, Minneapolis Planning Commission, pp. 42-90.

Experience in Minneapolis and other American cities has proven that neighborhoods and commercial centers do not have to decay and fall into obsolescence. Or if they have before effective action could be taken, they can be returned to vital, productive use which contributes to the health and stability of the city. Whether Riverside can become a healthy and stable area depends upon the foresight and commitment of all who are concerned with its future.

University and college growth

The University of Minnesota, Augsburg College, and St. Mary's Junior College will continue to grow, without seeking to, because of two inescapable facts. First and most simply, about eighteen years before the start of every school year a lot of babies are born. The post-World War II baby boom is now yielding a huge increase in the college-age population. A study by the University showed that the number of potential Minnesota college freshmen increased from 19,700 to 27,200 between 1964 and 1965, which was a 38 percent increase in one year. The study also showed that this rate of increase, based on the number of births during the past eighteen years, would continue at least until the mid-1980's.

The second major fact causing college growth is the increased demand by employers for college-educated personnel. This means that a greater proportion of the college-age group is impelled to attend college. At the turn of the century, about 4 percent of the college-age group were attending college. By 1954, 24 percent of the Minnesotans in the age group were attending college. By 1960, the percentage increased to 31 percent. Studies have shown that the percentage will increase to 38 percent by 1970 and to 40 percent by 1975.

The 1963 enrollment in Minnesota colleges was 96 thousand students and projections indicate an enrollment of 176 thousand by 1975 if classroom facilities are available.⁴ In recognition of the increased potential demand, new junior colleges in metropolitan and outstate areas have been authorized by the State Legislature.

This action will help to relieve part of the pressure on the University, but it will still be the State's only educational facility for professional and graduate education and for specialized research programs. It will also provide undergraduate education because such activity helps to strengthen advanced education and research.

University and college growth will influence Riverside in several ways including:

- Increased enrollment, employment, and other activity at the University and the colleges will increase the demand for housing and for community facilities and services.
- University and other institutional activity plus the related activities attracted to the Neighborhood will increase the demand for space in and near Riverside.
- Institutional and related activities will generate increased traffic in and out of Riverside which will result in congestion and parking problems.

The increased demand for housing, facilities, services, and other uses of land requires careful and intelligent delineation of land use areas. The probability of traffic congestion makes the relationship among traffic generators, parking areas, traffic routes, and access points critically important. Parking problems as well as traffic congestion will depend to a large degree upon the provisions made for institutional parking, but they also depend upon the actions of commercial and residential developers.

The growth of the University and other institutions pose considerable challenge as well as opportunity for Riverside. The challenge and opportunity can be met and fulfilled only by continued, dedicated discussion and negotiation by all interests involved in and concerned with the future of Riverside.

4. Current Economic Progress Report for THE UPPER MIDWEST, 1964, Upper Midwest Research and Development Council, Minneapolis, 1965, p. 79.

MAJOR CHALLENGES

The forces and trends discussed in Chapter I will influence the general future and potential of Riverside. They will cause further changes in the character of the Neighborhood and the demands made upon its space and facilities. If challenges are not met, Riverside will continue to lose neighborhood atmosphere and cohesiveness, more businesses will decline or be eliminated by market forces, streets will become more congested, walking and cycling will become less safe, parking will become increasingly difficult, and the Neighborhood will continue to be inefficient and undesirable. The following major challenges must be met if Riverside is to become a vital area, contributing its share and more to the economic, physical, and social well-being of the City, the metropolitan area, and the State:

1. The need for a dramatic change of the environment and image of Riverside is a most important challenge. All other challenges are related to this basic necessity. Without it the Neighborhood will remain, particularly in public opinion, an undesirable area even if it were possible to completely renew it a building or parcel at a time. The degree of change which is occurring in the institutional areas needs to be generally duplicated in the remainder of Riverside.
2. There is not only the need for a reversal of the present image, but also a need to go further and develop a unique, coherent and prestigious image through the application of urban design principles. This element of distinction requires sensitive and dedicated efforts by institutions and developers to provide personality and prestige for Riverside while maintaining identity for the individual use areas. Good design of the institutional areas can provide the catalyst and core for realizing the potential prestige and vitality which Riverside is inherently capable of achieving. However, it will also be necessary for the other developers of Riverside to exercise good design sense if the residents of the entire State are to be proud of the site of their State University.
3. Maximum effort will be needed to provide adequate housing for students. Most of the present private housing in Riverside is not adequate in either quantity or quality. It is illogical and unreasonable to expect students of one of the major universities in the richest nation on earth to contend with the dulling, depressing, and dangerous effects of substandard housing and environment.
4. In addition to the need for adequate housing in a favorable environment, Riverside also needs a substantial volume of housing to enable as many students as possible, consistent with other goals, to live near

the institutions. This means that the Neighborhood should be developed to efficient densities that provide an adequate quantity of housing.

5. Another challenge will be to provide housing of different types and sizes in different price ranges to allow people with different incomes, occupations, and ages to make Riverside their home. This is necessary to allow the heterogeneous mixture of scholars with other members of society, thereby avoiding the development of an intellectual, economic, or age group ghetto.
6. Sufficient, adequate housing for different types of people can be provided most feasibly by large-scale land assembly combined with planned residential development. The assembly of a few parcels or a block or two at a time will not allow the replanning of the street system, which is necessary, both to make excess street area available for development and to provide for safe, convenient circulation that minimizes the disruption of the Neighborhood. Small-scale land assembly also has the disadvantages of not allowing the necessary densities to be achieved and of reducing the land available for parking and open space. Piecemeal land assembly can only result in inefficient and disjointed piecemeal development.

7. There is also a need to change the character, quantity, and location of various community facilities. Park and playground space will have to be redistributed, utility lines relaid in new streets, and other facilities altered as the character and population of Riverside change.
8. The commercial community faces continuing change which will require considerable adaptation if existing units are to survive, let alone acquire their share of business. The challenge is to provide sufficient, competitive facilities and services before market forces result in the further assumption or pre-emption of this function by others either inside or outside Riverside. The commercial community can, through joint action and with public aid, develop a consolidated, healthy commercial area with modern stores and parking that will efficiently meet the needs of Riverside and also be competitive with other shopping areas. The commercial community is also faced with the challenge of supporting the renewal of residential areas, thereby rebuilding its immediate market area.
9. Riverside represents the best opportunity for large-scale private building that will occur in Minneapolis in the foreseeable future. This is due mainly to the combination of an old, deteriorated area with a certain, high demand for new facilities in the same area. The major obstacles will

be the large number of small parcels to be acquired, the multiple ownership of properties, the need to relocate industrial and some commercial uses, and the profiteering instinct of a few property owners. These obstacles are made critical by the necessity for complete land assembly in some sections to provide efficient circulation, to make a maximum amount of land available for development, and to allow the most efficient reuse of land in terms of density and desirability. The magnitude of these obstacles may make it necessary to combine the public assembly and planning of land and its uses with the private rebuilding of structures.

PLANNING GOALS

The Comprehensive Municipal Plan points out that,

"The guideposts to planning are the values, hopes, and needs of citizens. Any plan or program must be based on these aspirations, but they must first be formulated into goals. Seldom, however, are such goals put into words; instead they remain implied or understood, not clearly stated.

"Failure to formulate goals frequently leads to contradiction and conflict in action, either because no thought is given to the community's basic objectives, or because secondary objectives are confused with basic objectives and are allowed to override them. On the positive side, the process of goal formulation and goals themselves have four specific values.

- "1) Goals give direction to government officials and agencies, enabling them to work in closer accord with community desires.
- "2) The process of goal formulation clarifies the difference between primary and secondary objectives, thereby providing a clearer understanding of each.
- "3) Goals provide a framework of understanding so that the many diverse decisions affecting the city can be made in the same context.

- "4) The formulation process provides an opportunity for community and individual discussion of objectives and brings the citizen into direct participation in his city's development."⁵

In order to provide the necessary direction, clarification, and framework, discussions were held by the Cedar-Riverside Area Council (CRAC) and Neighborhood residents, with the cooperation of the Planning Commission staff, which led to the formulation of goals for the development of the Riverside Neighborhood.

Riverside Neighborhood Goals

The goals for Riverside Neighborhood were delineated within the context of the four major city-wide planning goals that relate to (1) a balanced population, (2) economic growth, (3) the ideal community, and (4) the ideal neighborhood.⁶ The delineated goals relate to the desired composition of population and housing, the character and quantity of commercial and industrial uses, the appropriate development of community facilities, the necessary elements of the circulation system, and the necessity for improving the environment and appearance of Riverside Neighborhood.

5. Comprehensive Municipal Plan of Minneapolis, City Planning Commission, Publication No. 157, Winter 1965-66, p. 17.

6. Ibid, pp. 17-18.

The Cedar-Riverside Area Council and others began discussion of goals in 1965. After preliminary discussion, five committees, that included local residents and businessmen who were not delegates of the organizations forming CRAC, were named to examine the future needs of the Neighborhood and to express their ideas for the development of Riverside. The five areas of major emphasis were:

1. Population and Housing
2. Commercial Uses
3. Industrial and Related Uses
4. Traffic and Circulation
5. Community Facilities and Neighborhood Image

After extensive discussions, including detailed consideration by the full council, a broad consensus as to general goals was reached and the Cedar-Riverside Area Council adopted a preliminary statement of goals in mid-February, 1966. After reevaluation and further discussion, the following goals were adopted by CRAC in June, 1966:

"Population and Housing

1. Riverside should be a heterogeneous area that is as representative of the larger metropolitan community as possible and should include not only scholars, but

also members of other occupational groups, both related and not related to the institutions in the area.

2. New housing should be provided in various types, sizes, and costs to foster heterogeneity of population in terms of age, marital status, education, occupation, income and family size, thereby avoiding the development of a social, educational, or economic ghetto.
3. Housing should be designed to allow social interaction by members of the various population groups while also allowing privacy.
4. In view of the large potential population increase in Riverside, as much land as possible should be devoted to the provision of housing at densities compatible with the future character of Riverside.
5. Special attention should be devoted to providing:
 - individual ownership of housing units through means such as condominium and cooperatives.
 - short term accommodations for visitors.
 - adequate housing for married and single students and employees at a varying range of rents.

6. The design of the Riverside environment should be at human scale, which means that buildings, their parts, and their surroundings should relate harmoniously to each other and to people in order that people may comprehend their surroundings and feel in place in their environment.

"Commercial

1. Riverside should have a centrally located, convenient, and competitive shopping area which provides an ample quantity and quality of goods and services to meet the needs of the resident and nonresident population associated with the area.
2. Commercial facilities should, except for a supermarket, be fairly small; directed toward an appropriate cultural level; and should include various specialty and cultural uses.
3. The image and facilities of the commercial center should have as broad a geographic appeal as possible to minimize the impact of the summer exodus of students.
4. The concentration of liquor establishments in Riverside is too great and should be reduced through expansion or elimination of the liquor patrol limits or other means to allow the remaining

establishments, in a constructive and complementary manner, to meet the needs of the area.

"Industrial, Wholesale and Related Uses

1. Due to the necessity for intensive development of all available land and the need for an appropriate environment in Riverside, further industrial and related uses such as those presently in the area, should be prevented from entering the area, and existing uses should be encouraged and assisted to relocate outside Riverside whenever feasible.

"Community Facilities

1. Parks

- a. Where feasible, existing park areas should be maintained and when appropriate, expanded, or relocated.
- b. Parks should be located and developed to meet the specific needs of the future residents of Riverside, and should include small play lots in residential areas.
- c. The natural beauty of the Mississippi River gorge should be reclaimed for public use and enjoyment by extending Riverside Park and the West River Parkway northward along the river.

2. Schools

- a. Publicly-supported bus service should be provided for elementary school pupils to provide safe access to the new Seward School.
- b. It would be desirable for high school students from Riverside to have the option of attending either Marshall or South High School.

3. Religious Facilities

Plans should provide the opportunity for the development of sufficient religious facilities to meet the needs of the residents of Riverside.

4. Social Services

Appropriate social services including recreation facilities and programs and day or nursery schools (for preschool children) should be provided in Riverside.

"Circulation

All necessary elements of the circulation system such as streets, freeways, parking areas, mass or rapid transit, rail, pedestrian, and bicycle should be developed in proper proportion and with appropriate interrelationships to provide the most convenient travel with the least cost in terms of time, money,

and dislocations for the individual, the area, and the city.

1. The development of a safe, convenient, pedestrian-cycling network, linking the institutional areas, the commercial center, and the residential areas, is of primary importance in Riverside.
2. While adequate access must be provided to all land uses, particularly for emergency vehicles, the street system should be altered and reduced to provide more efficient circulation and to free land for needed development.
3. The street network and freeway ramps should allow the expeditious movement of traffic into, out of, and within Riverside while traffic which neither originates or terminates in the area should be reduced as much as possible.
4. Parking in Riverside should be predominately off the streets and in parking ramps both to allow the street network to function as efficiently as possible and to minimize the use of scarce land by parking lots.

"Visual Image

1. Quality design of private and public buildings, directed toward improving the three-dimensional physical environment and character of Riverside, with particular attention to human scale, should be encouraged.

2. The existing natural and man-made visual assets and amenities should be protected and strengthened.
3. The massing and grouping of structures and their relationship to open spaces should be developed at human scale to provide for serenity and reflection.
4. Public and private street furnishings and the landscaping and maintenance of streets and freeways should aid in creating a positive visual image for Riverside and might include elements such as well-designed kiosks at transit stops, simplified and attractive street and business signs, the eventual elimination of billboards, underground routing of utilities, and paving of the redesigned internal street network."⁷

The above goals represent, in some instances, a generalization of more specific goals that were suggested by member organizations and by individuals during the course of discussions. Because of their general nature, they also represent areas of major agreement that can be refined and made more specific as the planning program continues and more detailed information is available to interested citizens and organizations. The goals listed here provide one of the major bases for the comprehensive plan section of this report, which represents the Planning Staff's interpretation of the Neighborhood goals

7. Preliminary Goals Statement, Cedar-Riverside Area Council, Minneapolis, February, 1966

combined with the Neighborhood analysis and the state and metropolitan area goals cited below.⁸

State and Metropolitan-Level Goals

The educational and health care institutions in Riverside are of greater benefit and importance to the metropolitan area and to Minnesota than they are to Riverside or Minneapolis. It is true that the institutions represent a considerable burden in terms of land and buildings removed from the property tax rolls (approximately 125 acres), that they serve a population predominantly originating from outside the municipal limits, that they cause increased congestion on city streets, and that they displace the original neighborhood residents. Other similar statements can be made but will not be because the point is not that the institutions are an unmitigated burden to the Neighborhood and City, but rather that they are of vital importance and advantage to residents of the entire metropolitan area and State. Therefore, although it is not possible to obtain a statement of goals for Riverside Neighborhood from this state-wide population, it is important to make explicit the state- and metropolitan-level goals that are reflected in the comprehensive plan. These goals are as follows:

1. Achievement of a more balanced population by reducing the continuing migration out

8. The neighborhood analysis is contained in Riverside -- Challenge and Opportunity, Minneapolis Planning Commission, Publication No. 168, Winter, 1965-66.

of the State by the better-educated, more productive members of the 25-45 year-old population.

2. The enhancement of the educational institutions that train Minnesota's most valuable natural resource -- minds.
3. Reflecting Minnesota's best opportunity to compete effectively for a share of national productivity, industries that depend upon minds and ideas should be encouraged and assisted as much as possible to locate in the State.

The above goals are interrelated and the best possibility for an improved Minnesota economy lies in their fulfillment. (See volume cited in footnote 2.)

PLAN IMPLEMENTATION

The comprehensive plan for Riverside Neighborhood provides an outline for achieving the community and neighborhood goals expressed by the Cedar-Riverside Area Council and the Minneapolis Planning Commission. The plan must be given substance through the exercise of the various tools available for accomplishing specific desired ends. Without intelligent and determined use of available tools, the plan will be only a statement of what might have happened to vitalize Riverside and transform it into an effectively functioning part of the metropolitan community. A brief description of a number of the applicable tools follows.

Zoning Ordinance

The Zoning Ordinance is used to limit the use of land and buildings to compatible specific uses and types of uses, to control the height and bulk of buildings, to specify maximum lot coverage by buildings, and to specify the maximum number of housing units that may be built in specific areas. It is a major tool for implementing the Land Use Plan because it specifies maximum densities, maximum land coverage, and permitted uses. However, the Zoning Ordinance does not insure that desirable commercial land uses or types of housing will be developed nor that efficient densities coupled with adequate open space will be achieved. It does set up

requirements for off-street parking that can aid in reducing traffic congestion, in increasing safety, and in making the commercial uses more accessible, thereby widening their market area.

Subdivision Regulations

The subdivision regulations apply to the development of vacant land and to the redevelopment of built-up land which is replatted and provided with a redesigned street pattern. Plats or replats submitted to the Planning Commission for approval are required to meet certain minimum standards for street, lot, block, and easement layout, and to conform to the Land Use Plan adopted by the Planning Commission.

Truck Route Ordinance

The City Council has the power to set truck routes within the City, both to provide necessary circulation routes for trucks and to prohibit major truck traffic along streets where it would work against the general welfare of the community. This ordinance provides one of the tools for implementing the Circulation Plan.

Street Paving Programs

The long-range program for paving residential streets was discussed fully in Riverside -- Challenge and Opportunity. Due to the fact

that the paving problems encountered in other parts of the City are more severe than in Riverside, it is unlikely that this limited program would reach Riverside for a number of years.

Off-Street Parking

Minneapolis is empowered to acquire land through gift, lease, negotiated purchase, or purchase through eminent domain proceedings, in order to provide public, off-street parking facilities. The City could pay up to half the cost from parking revenue and the benefitted properties would pay the remainder. This tool could be useful in the revitalizing of the commercial community in Riverside. (See 1947 Laws of Minnesota, Chapter 524, H.F. 1519.)

Ornamental Street Lighting

The City Council may, after a public hearing, authorize the installation of ornamental street lights with the associated costs being charged to the adjacent property owners. Thus far, the lights installed under this program have been fluorescent; however, a modification of Council policy would allow other types of illumination.

A procedure similar to that for ornamental lighting is provided for obtaining street lights in addition to those provided at street intersections. This procedure could also be used to provide lighting for an internal network of walk-bicycle paths.

Condominium

The State Legislature has enacted a bill which provides for the purchase and sale of apartment units just as single-family homes are bought and sold. Common areas, such as hallways, are maintained and used jointly by all owners in both cooperative and condominium buildings. However, the major difference between cooperative and condominium ownership is that the owner of a condominium unit is financially responsible for and holds the title to only his unit. Condominium allows the home-owning family, if other factors are favorable, to live in an area of multiplex housing which tends toward greater neighborhood stability and continuity. The federal government provides special mortgage insurance for condominium housing under FHA Section 234 in order to encourage this form of home ownership.

Private Development

All of the construction, with the exception of street and utility work, will of course be performed by private contractors. In addition, it is assumed that virtually all of the non-institutional area will be developed by private profit or non-profit developers. One of the reasons for this comprehensive plan, which will serve as a guide to improving the total neighborhood environment, is that the total improvement program will serve as an aid in obtaining developer financing. This is important because the development cost of residential and commercial structures may reach as high as \$100,000,000.

Urban Renewal

Urban Renewal includes a number of actions that cities, with the financial assistance of the federal government, can take to eliminate or prevent slums and blight, both residential and nonresidential, and to remove factors that are blighting influences. The Housing Act of 1949, as amended through 1965, provides such aids as loans to cities and individuals, grants to cities and individuals, relocation payments and assistance, technical assistance, special mortgage insurance, special small business loans, and rent supplements.

Urban Renewal is a local program -- locally conceived, planned, and carried out by the local public agency which in Minneapolis is the Housing and Redevelopment Authority. The local renewal program is a concerted effort by a city, using both public and private effort and funds, to prevent or correct urban blight and decay through the carrying out of a long-range revitalization of both residential and nonresidential neighborhoods. With the completion of the Community Improvement Program studies, Minneapolis has one of the bases for such a long-range revitalization. The two major elements of the revitalization include:

1. Prevention of blight through neighborhood conservation, including improvement of public facilities and code enforcement, and the rehabilitation of deteriorating structures.

2. Purchase and clearance of blighted areas where more than 50 percent of the structures are deteriorated and disposal of the land, mainly to private individuals, for redevelopment.

Federal assistance is available if local resources are not adequate and if Urban Renewal projects are tied to a broad, systematic effort to revitalize the City through:

1. Adequate codes and ordinances and their enforcement
2. A comprehensive municipal plan
3. Neighborhood analysis
4. Administrative organization
5. Adequate local financing for the program
6. Adequate housing for displaced families, and
7. Citizen participation in planning the systematic program.

University Community Renewal

In the Housing Act of 1959, Congress recognized the special needs of communities around colleges and universities by passing special provisions for assisting in the improvement of university communities. Section 112 of the Act states that when the City Council

determines that in addition to the elimination of deteriorated areas, the undertaking of an Urban Renewal project in a university or college community will further promote public welfare and proper development of the community, the Council may

1. Develop the community to "a cohesive neighborhood environment compatible with the functions and needs of the educational institutions".
2. Make land available to the institutions for their uses, and
3. Any combination of the foregoing, provided that they are developed in accordance with an Urban Renewal plan and the renewal plan is approved by the local governing bodies. A later amendment provides that college or university land purchase costs during seven years prior to the signing of loan and grant contracts may be credited as part of the local share of project costs. The University, Augsburg College, Fairview and St. Mary's Hospitals have spent several million dollars since 1959 that could be credited against the Minneapolis share of such a project in Riverside.

Continued population growth and the increasing need for college education mean that our institutions of higher learning will need all of the help they can get if we are to improve or even maintain our position in the national

economy. The institutions and the developers of Riverside, will need the help of the City if a sound and healthy community is to be developed and if the dislocation of individuals is to be minimized and eased.

College and Hospital Housing

Congress has provided funds that could be used by the University, Augsburg College, St. Mary's Junior College, Fairview Hospital, and St. Mary's Hospital for the construction of housing. The funds consist of long-term, 3 percent loans for housing for single students, married students, faculty, interns and residents, and student nurses. This program has been used elsewhere and could be used here to provide a substantial share of precisely the types of housing that should be developed in Riverside.

Medium-Income Housing

The FHA 221(d)(3) Below-Market Interest Rate (BMR) program provides for long-term, 3 percent loans for the construction of medium-income housing. The Act provides for up to 100 percent loans for non-profit corporations and up to 90 percent for limited-dividend corporations. A number of churches and unions have formed non-profit corporations and successfully developed medium-income housing. Because most of the potential demand for housing in Riverside will be in the low- to medium-income range, 221(d)(3) provides a most useful tool for meeting potential demand.

Rent Supplement

A limited amount of money is available to supplement rent for (1) elderly, (2) disabled, (3) by government, (4) standard housing, (5) enough to qualify, (6) The housing must be cooperative, (7) under the FHA construction-cooperative program, (8) qualifications made available, (9) occupant's income, (10) the balance not paid would be paid

Relocation Payment

The 1965 Housing Act provides for families, individuals, profit organizations or local governments that are eligible for the ceiling on business has been set at \$2,500 Act to ease the relocation

Urban Beautification

Matching (50 percent) for local government operation of open spaces. Such things as

Rent Supplements

A limited amount of funds are available to supplement rent payments by those who are (1) elderly, (2) handicapped, (3) displaced by governmental action, (4) living in sub-standard housing, and whose income is low enough to qualify them for public housing. The housing must be built by non-profit, cooperative, or limited-dividend sponsors under the FHA moderate-income, modest-construction-cost, housing program. These qualifications being met and funds being made available, after 25 percent of the occupant's income had been paid for rent, the balance necessary to meet the full rent would be paid as a rent supplement.

Relocation Payments

The 1965 Housing and Urban Development Act provides for relocation aid and payments to families, individuals, businesses, and non-profit organizations displaced by many state or local government urban development programs that are assisted by Federal funds. The ceiling on relocation payments for small businesses has been increased by the 1965 Act to \$2,500 per establishment in order to ease the relocation of small businessmen.

Urban Beautification and Improvement

Matching (50 percent) grants are available for local government programs of beautification of open-space and other public land. Such things as street landscaping, park

improvement, tree planting, and mall and square improvement, undertaken as part of a comprehensive area program, would be eligible for 50 percent grants of the cost above the previous average City expenditure for such activities. The 1965 Housing and Urban Development Act also provides for an additional demonstration grant program, aimed at encouraging innovation, which would cover up to 90 percent of the total cost of experimental projects.

Open-Space Grants

States and local agencies are able to obtain Federal grants of up to half the cost of purchasing and making usable land for recreation, conservation, and other public uses in accordance with comprehensive area plans. The purchase of built-up land in urban areas for needs such as parks, playgrounds, and squares is also eligible for matching grants under this program.

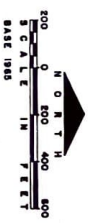
Community Improvement Program (CIP)

Urban Renewal has grown in scope from an activity narrowly concerned with housing to one concerned with the entire city structure and is one of the principle means for consciously guiding physical change. It has become increasingly obvious that the many problems facing close-to-city-center neighborhoods can be solved only through a careful coordination and integration of a variety of efforts including, but not limited to, the now familiar tools of redevelopment and rehabilitation designed to improve the physical, social, and economic environment of city neighborhoods.

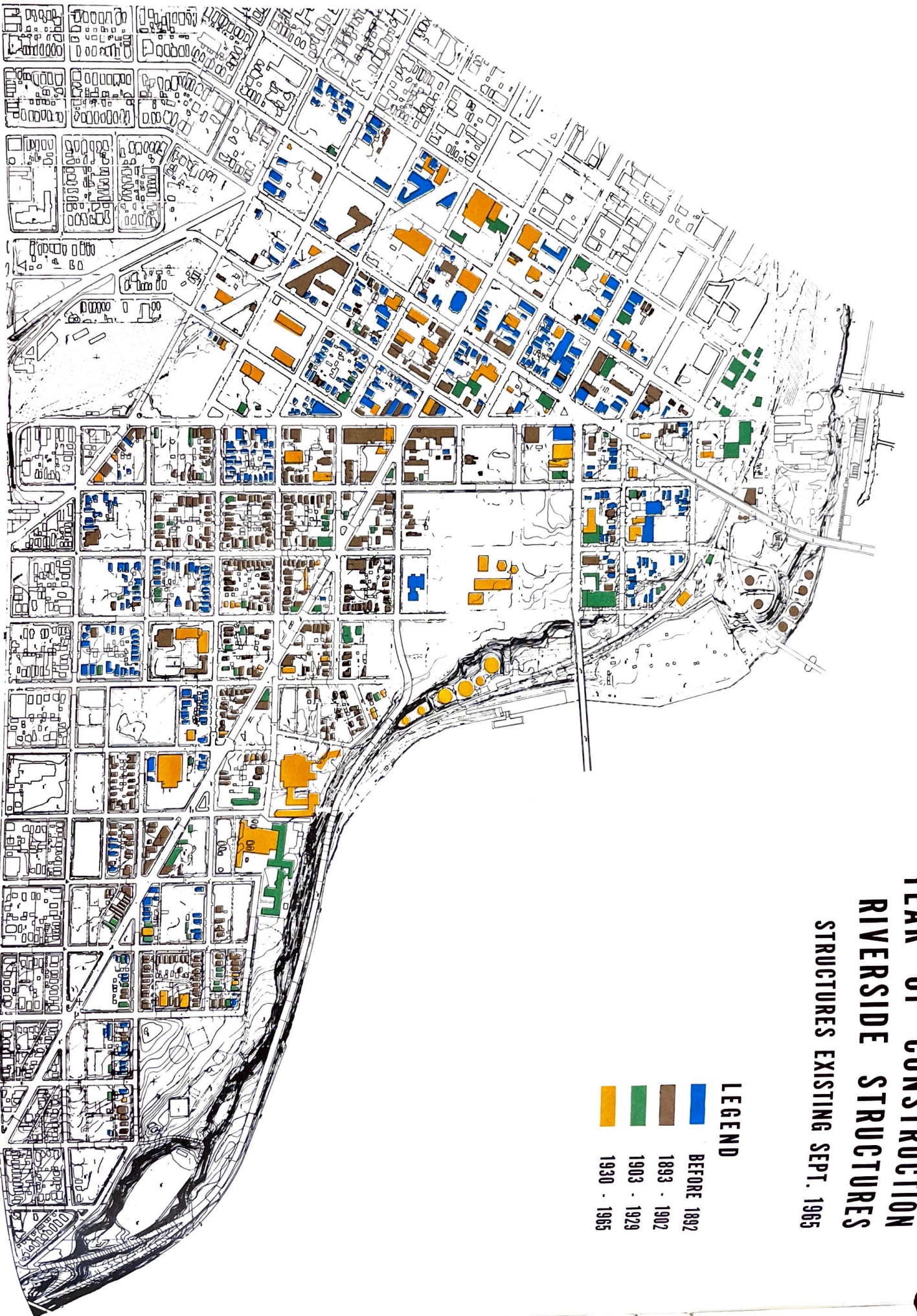
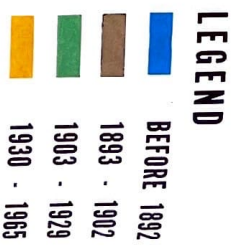
The ten community analysis reports, published as part of the CIP, provide the basis for a ranking of the need for and the type of action required in the various neighborhoods of Minneapolis. Study of the ten reports indicates that Riverside Neighborhood needs the most improvement and as soon as possible.

EXISTING LAND USE—SEPT., 1965 **RIVERSIDE NEIGHBORHOOD**

- LEGEND**
- RESIDENTIAL
 - RETAIL AND SERVICE
 - SOCIAL, CULTURAL, AND INSTITUTIONAL
 - INDUSTRIAL
 - WHOLESALE, WAREHOUSE, AND STORAGE
 - TRANSPORTATION, AND STREETS AND ALLEYS
 - VACANT LAND
 - PARKS AND PLAYGROUNDS



YEAR OF CONSTRUCTION RIVERSIDE STRUCTURES STRUCTURES EXISTING SEPT. 1965



COMPREHENSIVE NEIGHBORHOOD PLAN

The major sections of the Comprehensive Plan are the Land Use Plan, the Community Facilities Plan, the Circulation (Transportation) Plan, and the Neighborhood Environment Plan. The development of each major section is interrelated with and supports the development of the other major sections. For example, the types of land use and their intensity of use depend upon the desirability of the area, which is dependent upon its visual image and design, upon the availability of community facilities, and upon the internal and external accessibility provided by the circulation system and upon development economics. The development of each major section of the Comprehensive Plan for Riverside Neighborhood is presented in this chapter.

LAND USE PLAN

Changes in our society have led to changes in standards for land use and urban development. The development pattern in Riverside, which was set over a century ago for a society that took for granted the desirability of quantitative growth and speculative development, is obsolete when the necessity for respecting the rights of neighbors is recognized as being of vital importance to the functioning of an urban area.

For example, we now recognize that each lot in a neighborhood does not have the potential

for commercial or industrial use, nor is this desirable unless the uses are compatible with the neighborhood. However, under the expectations dominant during the first seventy-five years of development in Riverside, some lots were put to various uses with no apparent concern as to how each use would affect its neighbors. A large number of the uses that came into being had adverse effects on their neighbors and on the Neighborhood. Riverside became a less desirable place to live and do business, which was reflected in a depressed market for property until recently when the major institutions began to expand.

A number of the characteristics of land use in Riverside that were discussed in the Analysis Report demand special attention. They include:

- extensive intermixture of incompatible land uses, mainly west of 23rd Avenue South. This intermixture of uses is destructive and has a blighting effect on all the uses involved. It also prevents more desirable development from occurring. (See Analysis Report, Riverside -- Challenge and Opportunity, p. 11, and Existing Land Use Map.)
- an excessive amount of land is devoted to transportation uses with some 33 percent being devoted to streets and alleys while a further 12 percent is devoted to parking,

LIQUOR AND BEER LICENSES PER LICENSES AS OF JULY 9, 1965 RIVERSIDE NEIGHBORHOOD

LEGEND

- ON-SALE LIQUOR
- ▲ OFF-SALE LIQUOR
- 3.2% BEER ON-SALE
- ★ 3.2% BEER OFF-SALE



terminals, and railroads. Without positive action to reclaim land for more productive use and to use land more intensively, the percentage will increase because the freeways will take more land and the parking lots planned by the institutions could take another 8 to 10 percent.

- there is extremely little vacant, buildable land in Riverside which means that further development will have to be on cleared land.

- environmental and structural conditions are worse in Riverside than in any other neighborhood in Minneapolis. Nine-tenths of the existing residential structures were built during the last century for a lower-income immigrant population. (See Year of Construction map.) Most of West Cedar and South Riverside should be rebuilt.

- housing supply is very limited. Only about 900 housing units will not be removed by either freeway or institutional development and 10 percent of these will be tenement units. This falls far short of meeting even current needs for student housing alone.

- there are a large number of small or narrow parcels that make land assembly difficult, if not impossible, and threaten to leave some property owners with unsaleable property unless land in entire blocks is assembled for complete rebuilding.

- there is an excess of commercial space and a great excess of land zoned for both manufacturing and commercial uses.

- existing commercial facilities are not competitive with contemporary shopping facilities.

- a majority of commercial establishments are not oriented toward serving the educational-medical center that Riverside Neighborhood is becoming.

- the high concentration of beer and liquor outlets is not conducive to neighborhood development or stability. (See Liquor and Beer Licenses map.)

The above characteristics of the present neighborhood situation are dealt with in the development of the Comprehensive Plan.

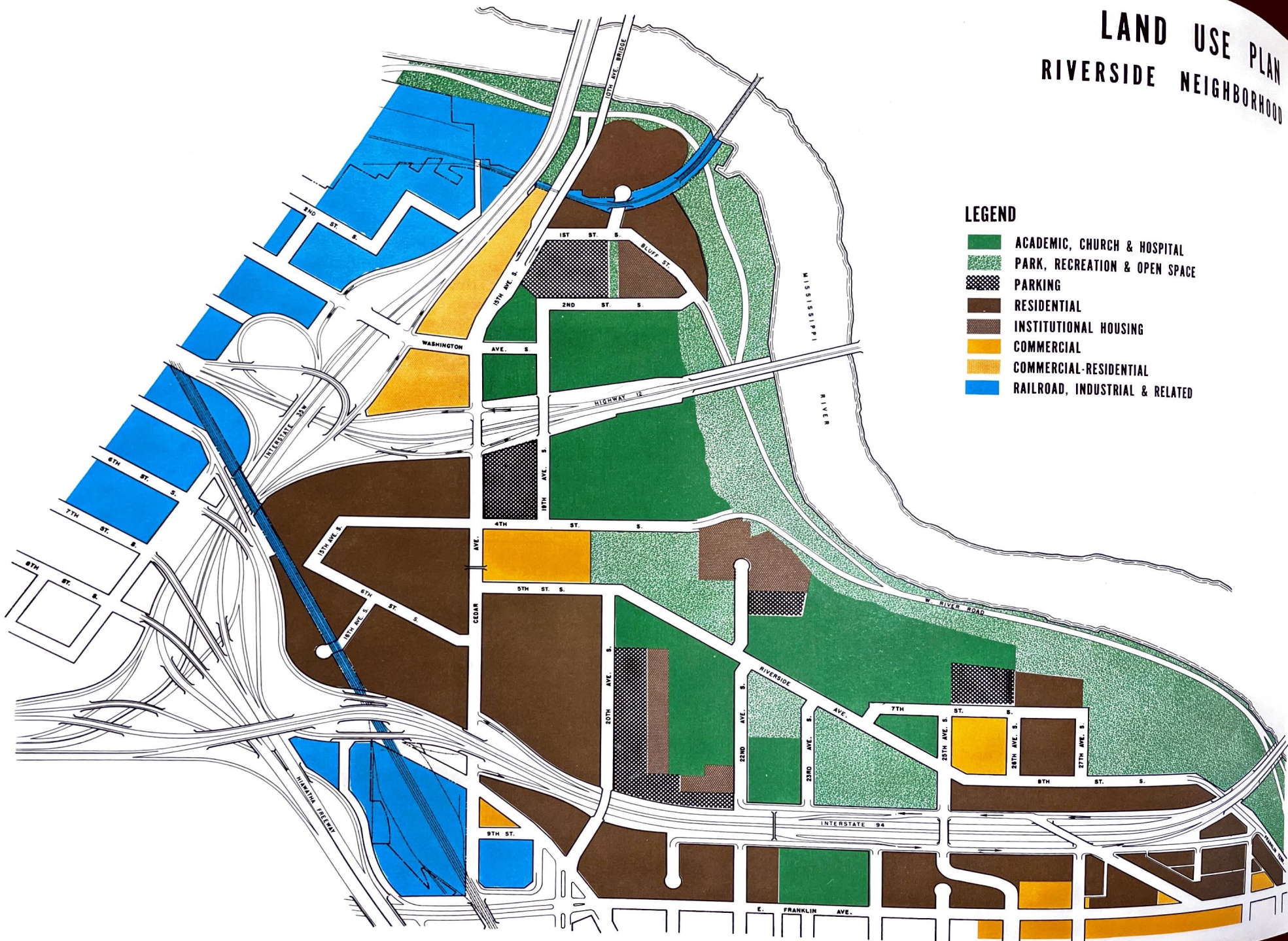
Institutional Land Use

One of the constraints on planning for the development of Riverside Neighborhood is the amount of land used and facilities provided by the major institutions -- Augsburg College, Fairview Hospital, St. Mary's Hospital and Junior College, and the University of Minnesota. The expansion of the institutions, which is being forced by continuing population growth and by increasing need for education and health care, has been feared and resented by many in the past. However, this expansion is not only economically and socially necessary, it has also provided the basis for the increase in

LAND USE PLAN RIVERSIDE NEIGHBORHOOD

LEGEND

- ACADEMIC, CHURCH & HOSPITAL
- PARK, RECREATION & OPEN SPACE
- PARKING
- RESIDENTIAL
- INSTITUTIONAL HOUSING
- COMMERCIAL
- COMMERCIAL-RESIDENTIAL
- RAILROAD, INDUSTRIAL & RELATED



the selling price of all property in the neighborhood, most of which would otherwise find few buyers. Institutional expansion also provides the basis for an increased demand for commercial goods and services which, if the commercial community develops contemporary facilities and methods, will result in a level of business activity several times greater than ever before. In addition, this expansion provides the nucleus for a reborn Riverside Neighborhood.

Of the approximately 353 acres remaining in Riverside after completion of the freeways, about one-third will be inside the institutional expansion area. This area will be devoted to various types of land uses including medical facilities, academic and office facilities, housing, recreational areas, open space, and semi-commercial uses such as bookstores, student unions, and eating facilities for students. The development of these uses will be discussed throughout this report whenever they relate to elements of the Land Use, Circulation, Community Facilities, or Neighborhood Environment Plans.

Housing

Housing is one of the most critical elements in the development of Riverside. With replanning, the Neighborhood has the capacity for a large supply of housing, but without replanning it has only a moderate capacity that is less likely to be realized. There are several

reasons why the potential capacity would not be achieved including:

1. Without replanning to provide a favorable environment that will attract potential residents and customers, it will be difficult or impossible to attract enough investment money to provide the needed types, quantity, and quality of housing as well as the needed commercial facilities.
2. Unless the street system is replanned to provide an effective circulation system, that would free up to 23 acres which are presently in streets for residential and commercial use, all or most of these 23 acres will remain as unnecessary streets which would mean a one-fourth reduction in the amount of land available for residential development. (See Appendix D, Table 2.)
3. Unless industrial and related uses that require large amounts of land are relocated outside the Neighborhood, an additional 22 acres will not be available for more land-intensive residential and commercial uses or for the necessary accompanying open and recreation space.
4. Without the complete assembly and rebuilding of land in the various sub-

areas of the Neighborhood, it is quite possible that development might take such undesirable form as mainly two-and-a-half story buildings which would be combined with some of the less readily redevelopable existing low density one-, two-, three-, and four-unit structures that would not find ready buyers.

5. The relatively high price of land in Riverside, the cost of clearance, conventional interest rates, and construction costs mean that unless various subsidies are employed, rents will be in the high price range. However, the great bulk of the potential demand will be for housing in the moderate- to low-price range which means that Riverside will not achieve optimum capacity unless the appropriate tools are used to provide units in the moderate-rent range.

A recent study of the demand for multiplex housing in Minneapolis shows that 77 percent of the demand during 1965-75 will be for units in the low- or moderate price ranges (under \$120 per month).⁹ The majority of the demand in Riverside will be for student housing. Students, as is shown in Appendix B, have a very limited rent-paying ability; therefore, it is mandatory that housing be provided within their means if Riverside is to fulfill its appropriate role as an education-oriented neighborhood.

9. Residential Land Marketability, prepared for the Minneapolis CIP by Larry Smith and Co., San Francisco, December, 1965, p. 63.

Both the quantity and quality of housing that will be produced in Riverside are of vital importance not only for the Neighborhood, but also for the city and the metropolitan area. The quantity of housing affects the total demand for commercial facilities, for recreational and cultural activities, and for community services. It also serves to lessen traffic congestion on freeways and on streets both inside and outside the neighborhood when more people are able to live within walking or cycling distance of school or work.

The character of the population living in an area is strongly influenced by the quality of the environment plus the quality of the housing supply in terms of space, price, convenience, and attractiveness. For example, the population in areas with poor housing and environment usually consists largely of people who have low incomes or are otherwise disadvantaged, which is reflected by such factors as a higher-than-average need for social services and a lack of purchasing power to support local commercial facilities. In addition to determining the amount of spendable income and the need for social services, the characteristics of the population in an area also determine the need for educational and recreational facilities, for various types of commercial facilities, and for particular elements of a circulation system and, in addition, have a major influence on the stability or instability of an area and on its reputation in the larger metropolitan community. It is vital to the future of Riverside that development allows and encourages residence by families as well as students.

Potential Development Possibilities

There is a wide range between the present and potential number of living units and of people in Riverside. In early winter 1965, there were some 2,700 living units and 5,600 people, about half of them students, in Riverside. Only 900 of the existing housing units, other than the Cedar-Hi apartments, will not be removed for freeway or institutional development; therefore, unless units are added before more are removed, the population will continue to decline for several years. If no housing were to be added, except the dormitory units planned by the institutions, the population of Riverside would be about 5,000 in 1970 and 7,000 in 1980. Virtually all of this population would probably be students.

If the more readily obtainable properties were to be combined into sites large enough for typical two-and-a-half story apartments, the neighborhood might hold a maximum of 8,000 to 10,000 persons depending upon how many of the existing properties were cut off from the possibility of redevelopment by the random private assembly of land. Random private assembly and development, which is the usual method in Minneapolis, leaves some properties in a position where they cannot be combined with other parcels to meet the lot-area requirements for development.



This form of development would also probably result in an almost complete student population and a nearly complete coverage of land by either buildings or parking lots without achieving an efficient density of housing units.

If the most developable areas outside the institutional boundaries were assembled by blocks, some streets were closed, and the blocks were rebuilt as planned developments, up to 4,000 units (twelve percent efficiencies) could be constructed. This might result in a neighborhood population of up to 15,000 persons, but only if the neighborhood environment and facilities were sufficiently improved. In addition, almost all students in apartments would have to share an apartment with three

other persons. If the environment and facilities are not improved, families able to pay higher rents as well as some students will not be attracted to Riverside, which would have undesirable impact on the development of neighborhood leadership and stability. It would also severely limit the amount of money available to support neighborhood businesses. (See Appendix B). However, construction of too many higher rent units would result in high vacancy rates because of the limited City-wide demand for high-rent units and because the major demand for housing in Riverside will be by students with temporarily low incomes. Few married students would be able to afford to live in Riverside developed in this way.

The public or complete assembly of land for private rebuilding in accordance with the Comprehensive Neighborhood Plan would result in the implementation of an efficient circulation plan; a more than doubling of the amount of land available for residential and commercial uses; in the implementation of land use and community facilities plans that would transform Riverside over a period of years into a convenient, desirable, and livable neighborhood; in a revitalization of commercial activity and a large increase in the volume of business; and in each current property owner being able to realize the current, appreciated price for his property. It could also result in the development of some 7,200 housing units (eight percent efficiencies) of various types and at varying rent levels. In addition, there would be about 5,300 units inside the institutional areas and

350 units of housing for older citizens. This form of development could result in a Riverside population of up to 25,000 people of varying characteristics, 40 to 60 percent of whom would probably be either single students or married students and their families.

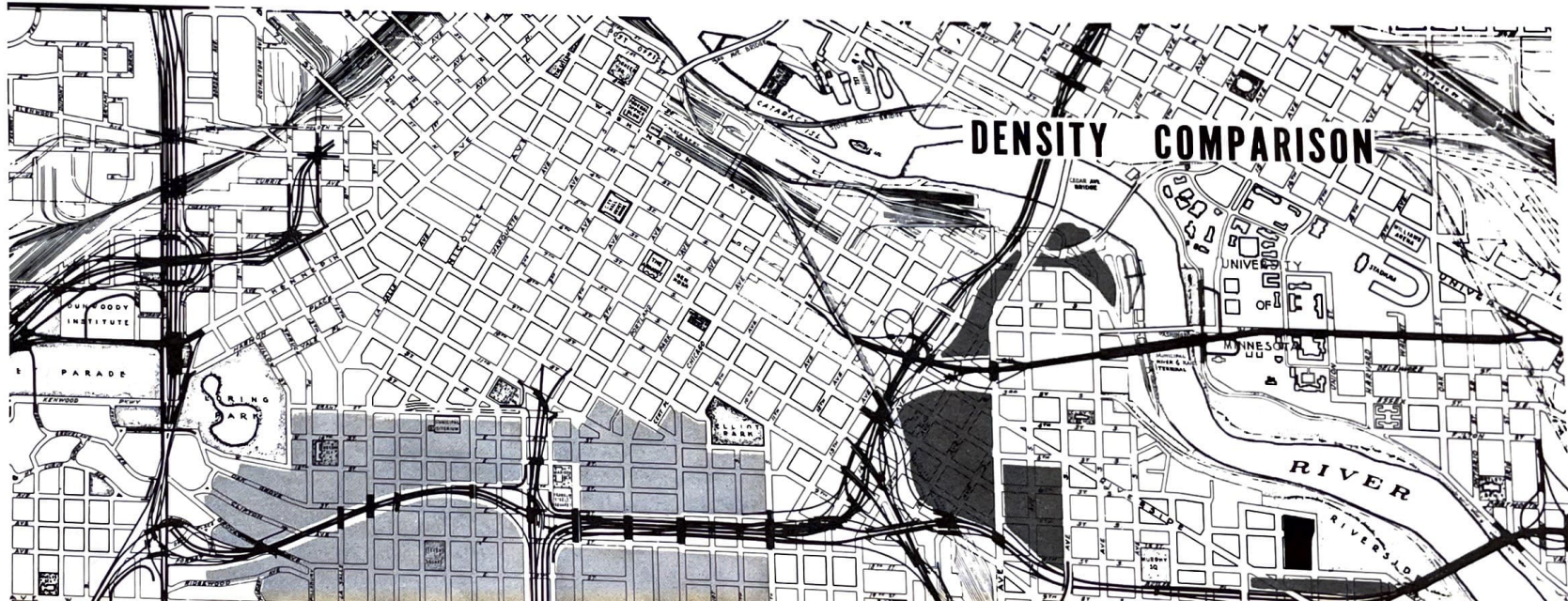
In order to achieve more varied types of housing and to provide a more livable and stable neighborhood, the maximum possible number of units should not be squeezed into Riverside. Rather, an overall density of 90 units per net residential acre should be achieved. This is higher than the density in any other Minneapolis neighborhood. However, it is considerably less than the theoretical maximum capacity allowed by R6 zoning. If the maximum number of efficiency units were to be built and the various bonus measures employed, the residential areas outside the institutional boundaries would hold about 14,500 units. This would result not only in an undesirably high density, but it would also be many more units than the market could absorb in the foreseeable future. (See Appendix A.)

The 7,200 recommended housing units would occupy the area in Riverside indicated on the Density Comparison map. By comparison, the shaded area south of Downtown, the largest, high-density area in the City, now holds some 7,200 housing units. The map indicates that the proposed density in Riverside is three to four times greater than the gross density in Loring Park or Elliot Park neighborhoods.

Student Housing

The four major institutions in Riverside plan to have about 2,800 dormitory units for single students by 1970 and about 4,700 by 1980.

There will also be a substantial potential demand for additional housing in Riverside for both single and married students as is shown on Table 1 on the following page.



Student Housing

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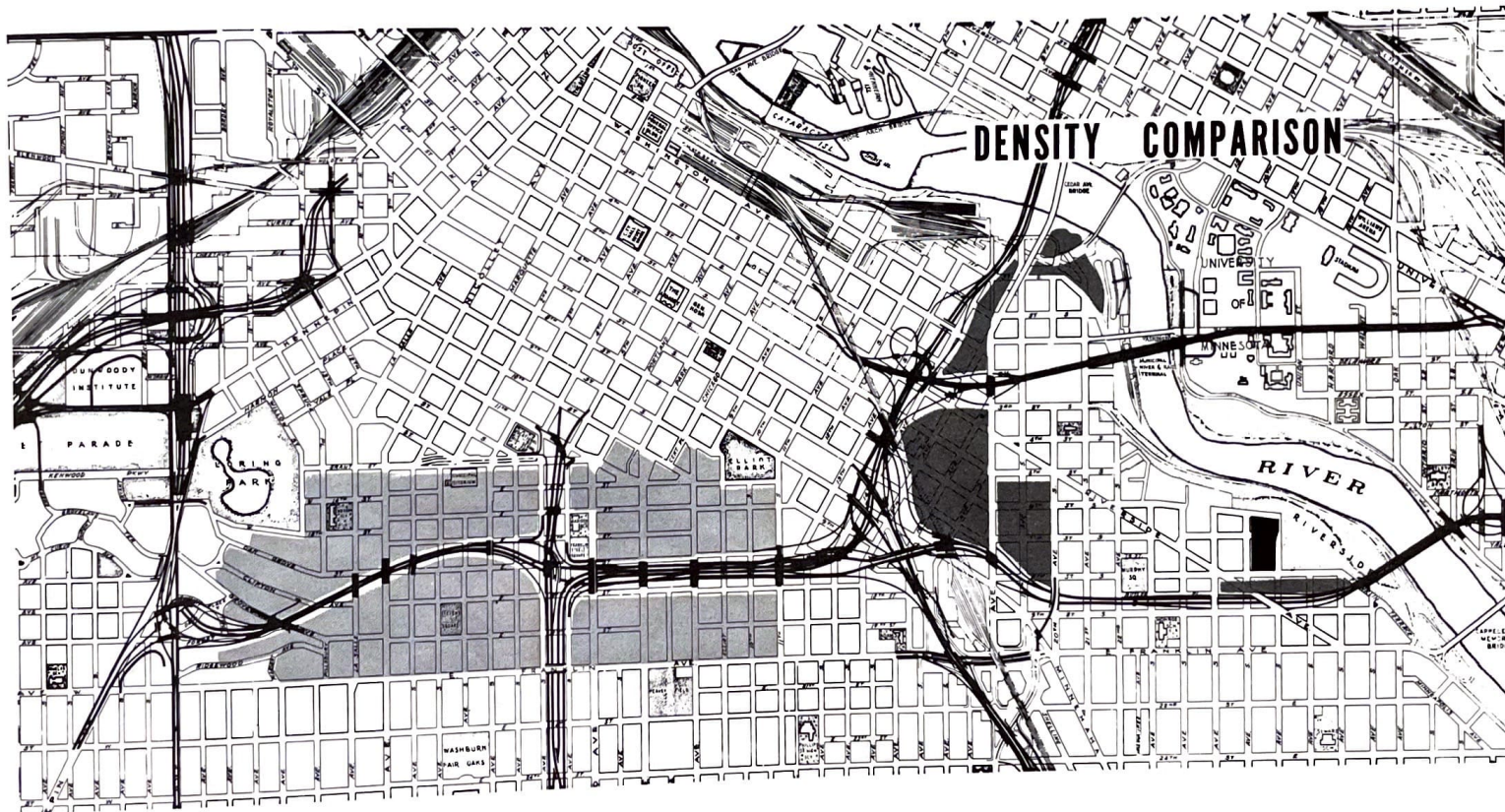


TABLE 1

POTENTIAL DEMAND FOR NON-DORMITORY STUDENT HOUSING
RIVERSIDE NEIGHBORHOOD - 1980

Single Students	Total	Non-Commuters	Estimated Potential Riverside Residents
University of Minnesota - East Bank	16,000	8,000*	1,000
University of Minnesota - West Bank	16,000	8,000*	7,000
Augsburg College	2,100	1,400	1,200
St. Mary's Junior College	650	600	550
Fairview Hospital	450	400	400
	35,200	18,400	10,150

10,150 - 4,685 planned dormitory units = 5,465 potential non-dormitory, single-student Riverside Residents.
 5,465 ÷ 2.0 students/living unit = 2,730 units for single students.

Married Students**	Total	Non-Commuters	Estimated Potential Riverside Residents
University of Minnesota - East Bank	4,000	2,000*	1,000
University of Minnesota - West Bank	4,000	2,000*	1,500
Augsburg College	200	100	50
	8,200	4,100	2,550

2,550 - 600 planned graduate student apartments = 1,950 units for married students.

* One-half of the students are expected to be non-commuters if adequate housing is available near the institutions. This involves an increase in non-commuters from 40 to 50 percent of the University student body.

** Assumes that 20 percent of University students and 8 percent of Augsburg students will be married.

The estimate of potential demand shown in Table 1 is exactly that -- an estimate of potential. It is not a prediction that the potential number of single and married students will live in Riverside. Before this potential demand can become an effective demand, the planned units of dormitory and graduate housing will have to be built by the institutions. Next, a large volume of primarily one-bedroom units will have to be constructed for married and single students. In addition, the neighborhood environment will need improvement and the rents will have to be low enough for students to afford. If these conditions are met, the population of Riverside could include single students and married students and their wives and children up to about 15,000 of the total resident neighborhood population.

The Land Use Plan map shows the distribution of the 25 percent, or some 88 acres, of the Neighborhood land area outside the institution boundaries suggested for use as sites for housing. In addition to the potential of 4,200 apartments for student housing, there is sufficient additional land outside the institutional boundaries in the Bluff Street, Seven Corners, West Cedar, South Riverside, and Riverside Park subareas to allow the construction of about three thousand housing units for persons who work for the institutions and for others who might work in Industry Square or who might be attracted by the new atmosphere of the Neighborhood.

The presence of this nonstudent population is of vital importance as has been recognized by the CRAC in its statement of goals presented on pages 13-16 and for the reasons given in the Analysis Report.¹⁰ A part of this nonstudent group would be able to afford high-price rental units or to purchase townhouse or condominium units. However, the bulk of the potential demand will probably be for medium-price housing for maintenance, clerical, junior faculty and administration, and industrial or manufacturing workers.

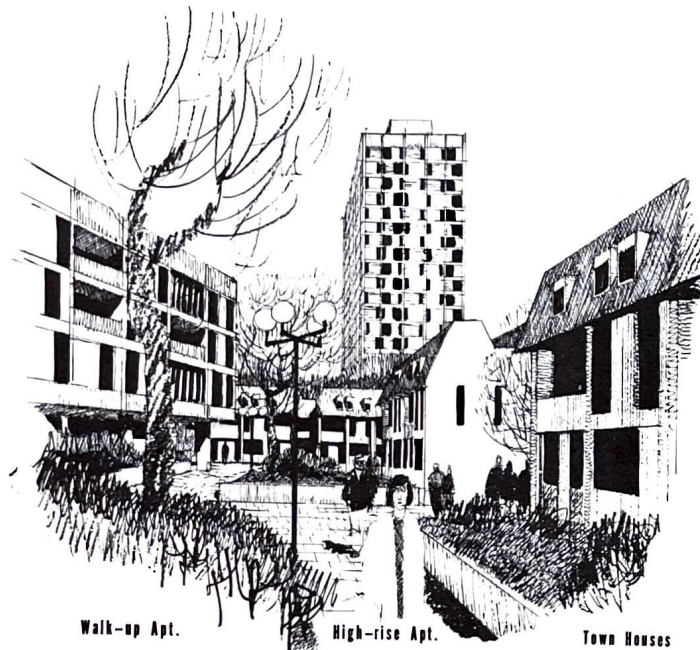
Recommendations

In order to achieve a viable neighborhood with an increased population which includes not only substantial numbers of students, but also members of other occupational groups, living in various types of housing, it is recommended that:

1. The noninstitutional residential areas of Riverside be developed at an overall average density in the high range at about 90 housing units per acre.
2. In the face of the large potential demand for housing, no single family detached hous-

10. Riverside - Challenge and Opportunity, Publication No. 168, Minneapolis Planning Commission, Winter 1965-66, pp. 53-4.

ing should be constructed, but rather the types of housing should vary from townhouses as the lowest density to high-rise apartment buildings.



INTEGRATION OF HIGH & MEDIUM DENSITY RESIDENTIAL DEVELOPMENTS

3. Residential development should occur as planned developments so as to combine an efficient density of housing with the provision of various types of housing in each subarea and also to combine adequate open and recreational space with the high density housing.

4. The institutions or non-profit organizations should use all available tools, such as low-interest loans, to provide as large a stock of medium-to-low income housing as is feasible.

Commercial

The future needs of the Riverside Neighborhood as expressed in the goals of the neighborhood group, require that obsolete and excess vacant commercial facilities be removed and the appropriate remaining uses, plus additional appropriate uses not now existing in the Neighborhood be relocated into a "...centrally located, convenient, and competitive shopping area..."¹¹ This is necessary both for the commercial community to achieve its potential growth and also to meet the needs of the population, resident and nonresident, for an ample quantity and quality of goods and services.¹²

The existing scattered and strip commercial development cannot function as effectively in terms of either services provided or volume of business as a concentration of stores with ample access to and among stores. In addition, the condition of existing commercial space is not good. A 1960 study by the Real Estate Research Corporation found only eight percent of the Riverside retail and service space in grade A condition, meaning "those

11. See page 14.

12. For an analysis of commercial facilities existing as of September 1965, see Riverside - Challenge and Opportunity, pp. 66-71.

structures which appear to be relatively new, well-maintained, and could generally be regarded as a credit to the area."¹³ A larger group of structures probably have "...no detrimental effect upon their surroundings..." However, 55 percent of the retail and service area was in "Structures which (were) old, show(ed) considerable deterioration, obsolescence, and antiquated appearance and which could be said to be generally detrimental to surrounding uses within the area." There is no reason to believe that the general condition of commercial space in Riverside has improved since the time of the above study.



13. "Study of Commercial Facilities in the Riverside Area" Real Estate Research Corporation, December, 1960.

Many, but not all, of the commercial activities that presently and will in the future aid in giving a special character to the Neighborhood depend for their existence on low rents. New facilities can and should be provided for artisans, craftsmen, retailers, importers, bookstores, and specialized service establishments at rents they can afford as well as for those users able to pay higher rents. Construction costs for unfurnished commercial space vary only slightly; therefore it will be necessary to use other techniques to provide space at appropriate rents.

Two possible techniques for holding down rents are long-term financing and limited-dividends on equity investment. One source of long-term, low-interest financing is the Small Business Administration's 502 program. This program, specifically designed to aid small businesses unable to secure ordinary financing, provides for 25-year mortgages at $5\frac{1}{2}$ percent interest. This form of financing would provide not only a favorable interest rate, but would also require a smaller annual repayment of principal and interest which would allow lower total rents.

A neighborhood businessmen's development corporation (or corporations) referred to in 2 below could be a non-profit corporation which could sell debenture notes as one method of raising equity money for the development of the shopping center. The corpora-

tion could develop, own, and operate its own shopping center with individual businessmen being both tenants of the corporation and landlords as corporation members, thereby being responsible for the operating decisions of the corporation that will affect the operation of their businesses.



Recommendations

In order to provide the necessary healthy and vital commercial community, it is recommended that:

1. The five and one-half acres between Fourth and Fifth Streets South and between Cedar and approximately Twentieth Avenue be developed as a moderate-sized neighborhood shopping center. (See Appendix B and Alternatives Chapter, Section B.) The center will be readily visible by the high-volume traffic on Cedar Avenue and

should have vehicular access from Fourth and Fifth Streets. In this way maximum exposure will be obtained but the congestion and confusion that would result from direct access to Cedar Avenue will be avoided.

2. Members of the existing commercial community form a corporation to develop, in cooperation with public and private institutions, the neighborhood shopping center. This would give each businessman a chance to participate in the ownership and operation of the shopping center.
3. City officials and agencies, particularly those involved in the licensing of establishments selling alcoholic beverages, should use all available means to reduce the number of these establishments in Riverside to not more than a half dozen. Future Riverside residents could probably provide support for not more than two or three alcoholic beverage outlets, depending upon their size -- more outlets would depend upon patrons from outside the Neighborhood. (See Appendix B.)
4. It is recommended that specific uses be developed in the Seven Corners subarea to form a commercial recreation-cultural center, drawing customers from throughout the metropolitan area. Such a center might include bars, coffee houses, restaurants or night clubs, art galleries, theater, movie house, offices and studios. When possible, the upper stories could be devoted to apartments. Alternatively,



RESIDENTIAL/COMMERCIAL ENVIRONMENT IN HUMAN SCALE

Seven Corners could be completely developed to provide housing. As another alternative, the southwest portion of Seven Corners would provide a site for a large parking ramp that would efficiently handle parking directly from the freeway ramp. (See Alternatives Chapter, Section E.)

5. Riverside should depend upon downtown private, transient facilities to meet any need that will not be met by institutional short-term housing facilities. However, if supported by market analysis, space for a motel-hotel might be included in the Seven Corners area.

6. One or two gasoline stations that include repair facilities should be included in the shopping center.
7. The University should extend its west boundary to Cedar Avenue, both to aid in the development of a unified Seven Corners commercial area that has a high degree of customer access between establishments without having to cross high-volume streets and also to provide an appropriate entrance to the State's University. As part of the same action, the University would draw back its boundary to allow development of the unified neighborhood shopping center at Riverside and Nineteenth Avenues.

Industrial and Related Uses

A brief analysis of existing industrial and related uses is contained in pages 72 through 74 of Riverside - Challenge and Opportunity. In the light of this analysis and because of the necessity for intensive residential and commercial development plus the need for a desirable environment, it is imperative that industrial uses be relocated outside the Neighborhood. Just over two dozen of the existing industrial and related uses will not be removed by either freeway or institution building programs. None of the two dozen are necessary or desirable if Riverside is to achieve its functional capability as an educational-residential-commercial neighborhood.

In order that the neighborhood goals be met, it is recommended that:

1. The plan for Industry Square should be implemented to assist not only the industrial and related uses that should relocate from Riverside, but also those from other areas of the city where industrial relocation is necessary. In addition, and perhaps most important, the implementation of the Industry Square Plan would provide space for additional new in-city research and development industry as well as more traditional industrial uses.
2. Provision should be made in the southeast section of Industry Square, nearest Riverside, for the university-related research and development industries that are vital to the economic life of Minneapolis and the area.
3. The City should take this opportunity to move the municipal harbor and the petroleum products storage facilities from Riverside to the Upper Harbor industrial area. This action would act as a catalyst to spur the development of the Upper Harbor industrial area. In addition, the River gorge and flood plain would be opened to public use and enjoyment. (See Parks section following.)
4. The City should use every available form of aid to assist in the relocation of existing industrial and related uses.

COMMUNITY FACILITIES PLAN

Schools

Riverside will probably not contain enough children in the proper age group to support a grade school large enough to function at what is considered to be an efficient level. There will be a considerable number of pre-school children; however, their parents will probably seek housing elsewhere before the children reach school age. This supposition should be re-evaluated as development progresses and if the number of families with school-age children attracted to the new Riverside is greater than anticipated, a kindergarten-through-third grade school may have to be provided. With this possibility in view, a site should be reserved in the West Cedar area between Fourth Street and the Cedar-Hi apartments. This area could be used as a park until such time as school space might be required. It would be desirable, to avoid the high cost of land acquisition and to use land more effectively, for the school space to be provided on the lower floor of an apartment building as part of a planned development. This space should be flexible and could be leased by the School Board.

A school located on this site would be safely accessible, via the recommended pedestrian overpass at Cedar and Fifth Street South, to children from South Riverside and Bluff Street areas. It would probably be even safer for children from Riverside Park to attend school in West

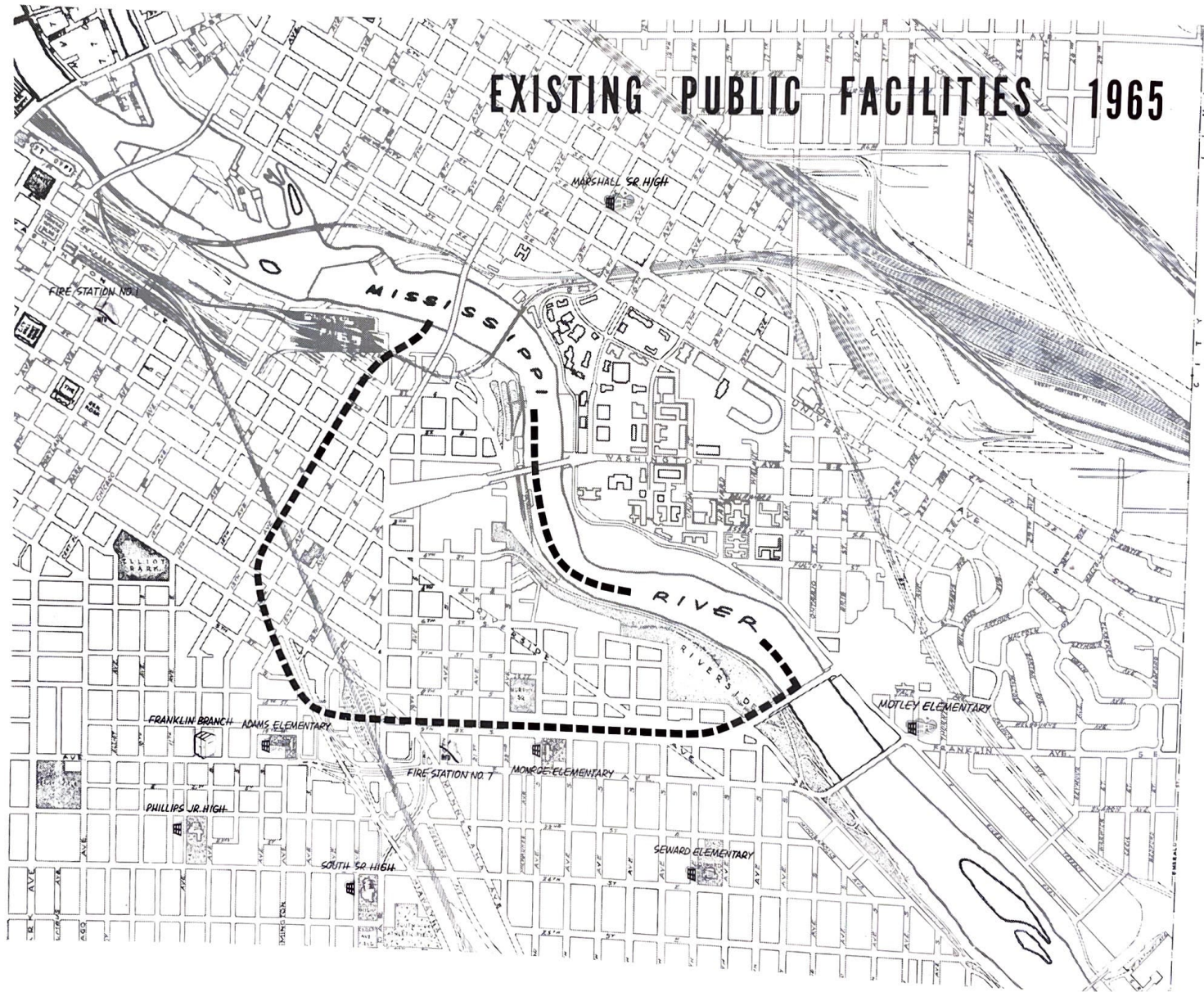
Cedar via the proposed pedestrian bridge over Cedar Avenue than to attend Seward School which would mean crossing two freeway frontage roads and both Riverside and Franklin Avenues. Until such time as a grade school might be required in Riverside, the children from the Neighborhood should be provided with school bus service to Seward Elementary School.

Riverside Neighborhood will not contain enough students to justify either a junior or senior high school. Riverside is currently within the area to be served by Phillips Junior High. However, the center of the Neighborhood is equally close to both Phillips and Marshall Junior-Senior High School, and the trip to Phillips would require the crossing of two freeways which indicates that junior high students from Riverside might best be included in the Marshall district.

At present, Riverside is within the South Senior High district. On or before the completion of the new South High on the East 31st Street site, Riverside Neighborhood should be transferred to the Marshall High district. Not only will the few Riverside high school students be closer to Marshall, but they will also not have to cross three or four freeways to reach Marshall as they would to reach the new South High.

If the proposed local loop bus routes, as recommended in the Circulation Plan, are estab-

EXISTING PUBLIC FACILITIES 1965



lished, it would be reasonable to transfer all junior and senior high students to the Marshall district. There are several reasons for such a change including:

1. The time and distance to school would be less.
2. Travel to school would be less difficult either by bus or walking.
3. No additional pedestrian crossings of the Hiawatha, Cedar Avenue, or 28th Street freeways would be necessary.
4. The attendance at Marshall High would be built up thereby assisting in the maintenance of a broad educational program.
5. High school student ridership of the loop bus system would aid in making it more successful.
6. Riverside Neighborhood would be more closely related to and identified with the remainder of the University Community as the character of the future population indicates that it should be.

Parks, Open Space and Recreation

Park and open space are of vital importance in Riverside because, if developed as recommended, it will have a substantial concentration of population. This concentration requires park and open space to allow for reflection and

a degree of serenity, and to provide the spiritual relief afforded by natural beauty in an urban area. The unique opportunity afforded by the river gorge and begun by the existing Riverside Park should be fully used to benefit the neighborhood, the city, and the residents of the metropolitan area.

Recommendations

It is recommended that:

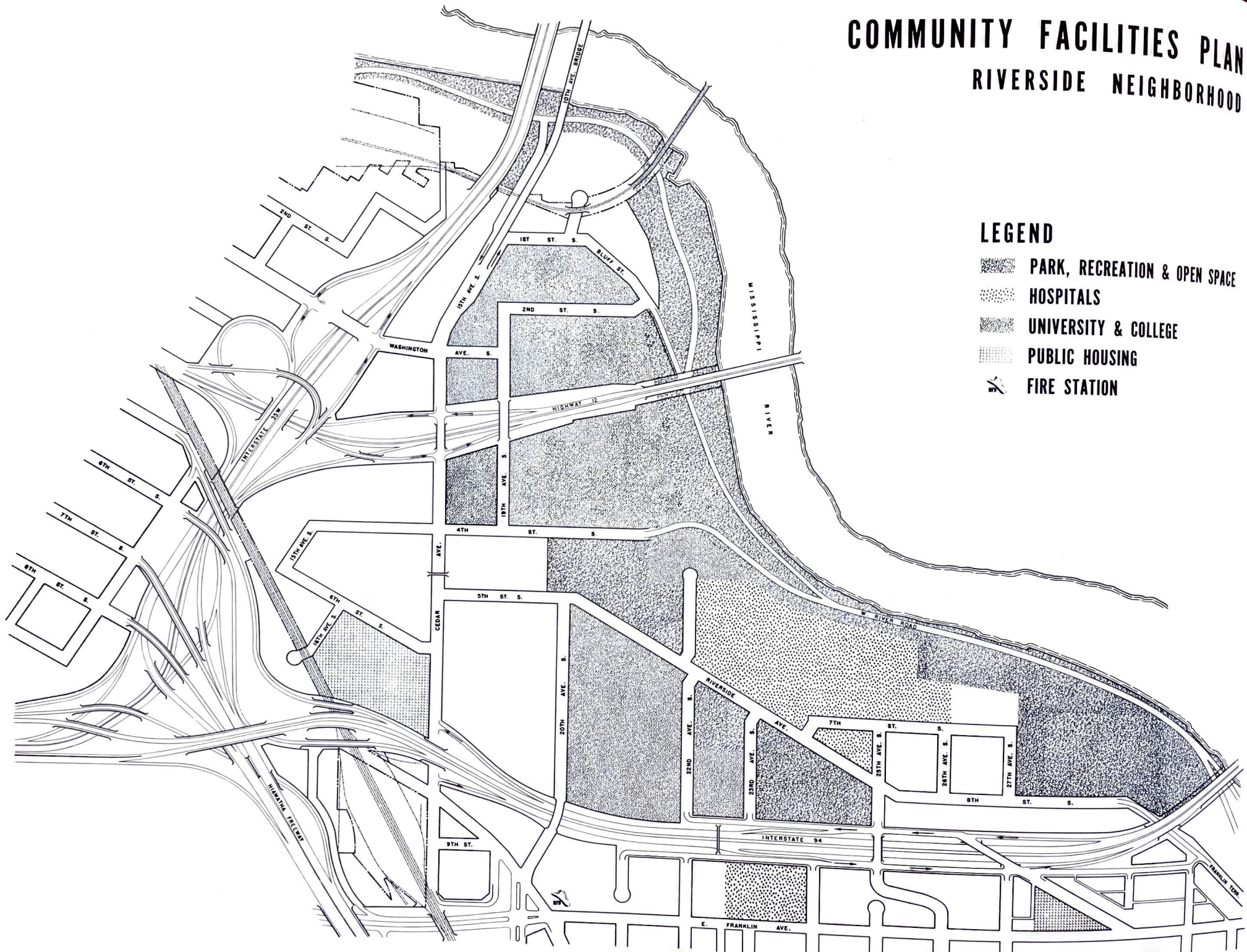
1. The University of Minnesota lease or buy the barge terminal and oil storage areas now owned by the City in order to provide open space, to improve its own environment, and to secure land for University activities other than parking of vehicles. Right-of-way through the present terminal area should be provided for the extension of West River Parkway. (See Circulation Plan for discussion of the parkway extension.)
2. The Park Board and Augsburg College should explore the possibility of exchanging land to relocate Murphy Square to the north of its present location. It is desirable in terms of access and useability by the general public, that Murphy Square should border Riverside Avenue rather than be semi-isolated within the Augsburg campus. If the City develops an urban beautification program, up to half the cost of improving Murphy Square could be met by Urban Beautification and Improvement grant funds. (See Alternatives Chapter, Section A)

COMMUNITY FACILITIES PLAN

RIVERSIDE NEIGHBORHOOD

LEGEND

-  PARK, RECREATION & OPEN SPACE
-  HOSPITALS
-  UNIVERSITY & COLLEGE
-  PUBLIC HOUSING
-  FIRE STATION



3. In order to provide open space within the residential areas, apartment buildings should be tall, covering a minimum of ground area, rather than low and covering a large proportion of the land. Parking should be either below ground or within the lower floors of residential buildings.
4. Developers should provide sufficient play areas and equipment for the small children who will live in the family units.
5. The Park Board should examine the possibility of selective trimming and removal of trees along the bluff in Riverside Park in order to open up the River to the view of residents and visitors in Riverside. In this way the Mississippi River can be utilized more fully and Riverside will tend to be identified with the beauty of the River gorge which will aid in altering the popular image of the Neighborhood as a blighted area.
6. The University and Augsburg should minimize the fencing of their recreational areas, consistent with safety and maintenance requirements. Such a course of action would increase the psychological feeling of open space even though physical access might be limited and restricted by plantings or low walls.

Sewerage and Water Systems

The Comprehensive Plan allows most of the existing sewer and water lines to be used in

place by the new development. The only major exception is in the West Cedar and Bluff Street areas where it will be necessary to lay new sewer and water lines. In any event, the freeway construction bordering West Cedar will require substantial modifications of utilities in the near future. It might also be necessary to install larger pipes in some sections because of the increase in volume over current levels. New storm sewers will also have to be installed, particularly in the Augsburg, St. Mary's, and Riverside Park areas where they are now combined with sanitary sewer lines.

Public Utilities

Major electric and natural gas distribution lines are under and over present Nineteenth Avenue South which indicates that sufficient capacity exists to meet the needs of Riverside. The larger gas mains could continue to exist in utility easements where street closings are necessary; however, a rerouting of service lines, similar to the rerouting of water and sewer mains, will be necessary because of changes in land use which eliminate demand in some areas and increase demand elsewhere. Easements should not be maintained for unnecessary existing service lines.

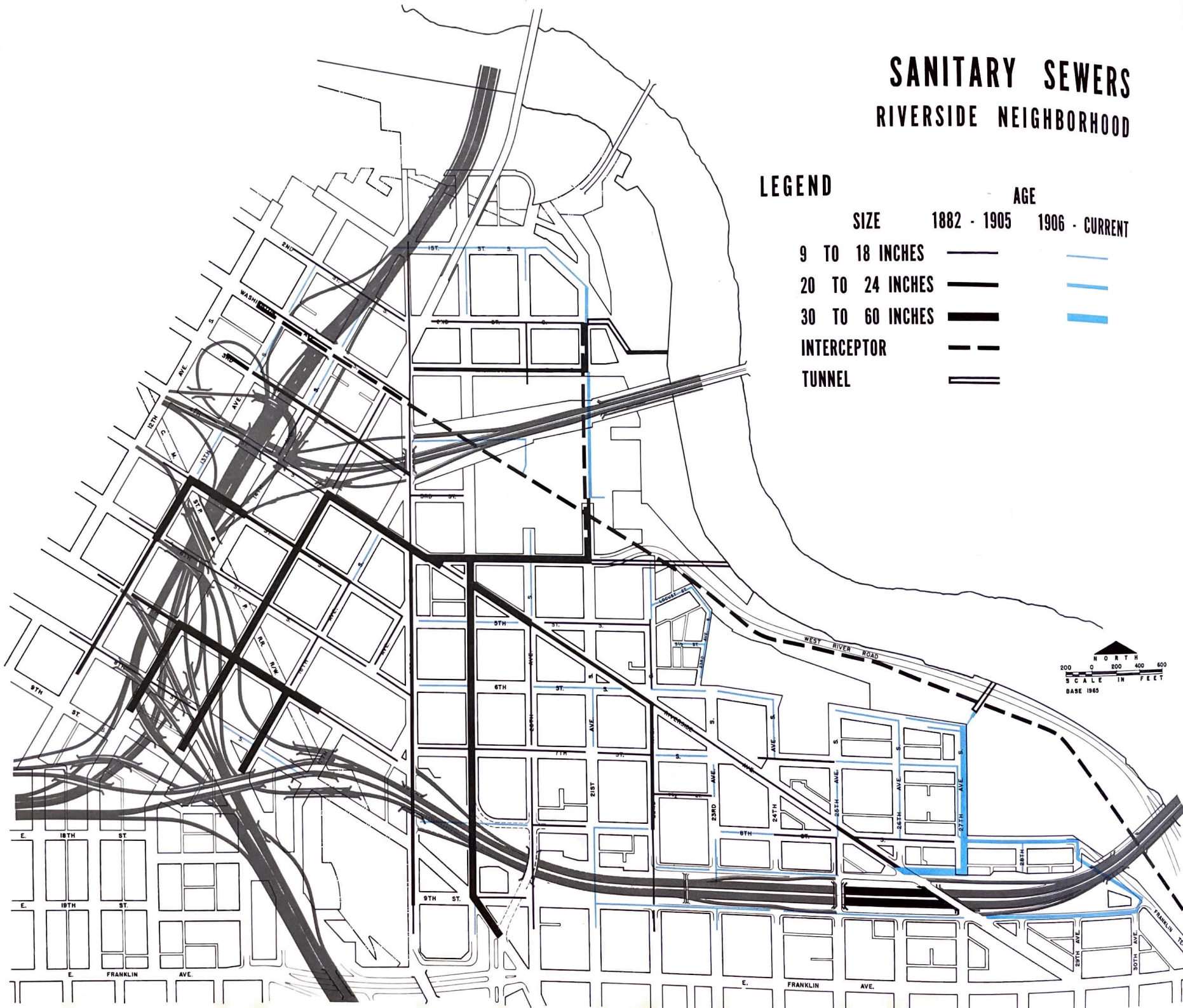
The major electric transmission lines along Nineteenth Avenue and other electric transmission and service lines in the Neighborhood should be put underground. Riverside will have a substantial concentration of tall buildings and fairly dense development which means that pole or tower-mounted lines are not only

SANITARY SEWERS

RIVERSIDE NEIGHBORHOOD

LEGEND

SIZE	AGE	
	1882 - 1905	1906 - CURRENT
9 TO 18 INCHES		
20 TO 24 INCHES		
30 TO 60 INCHES		
INTERCEPTOR		
TUNNEL		



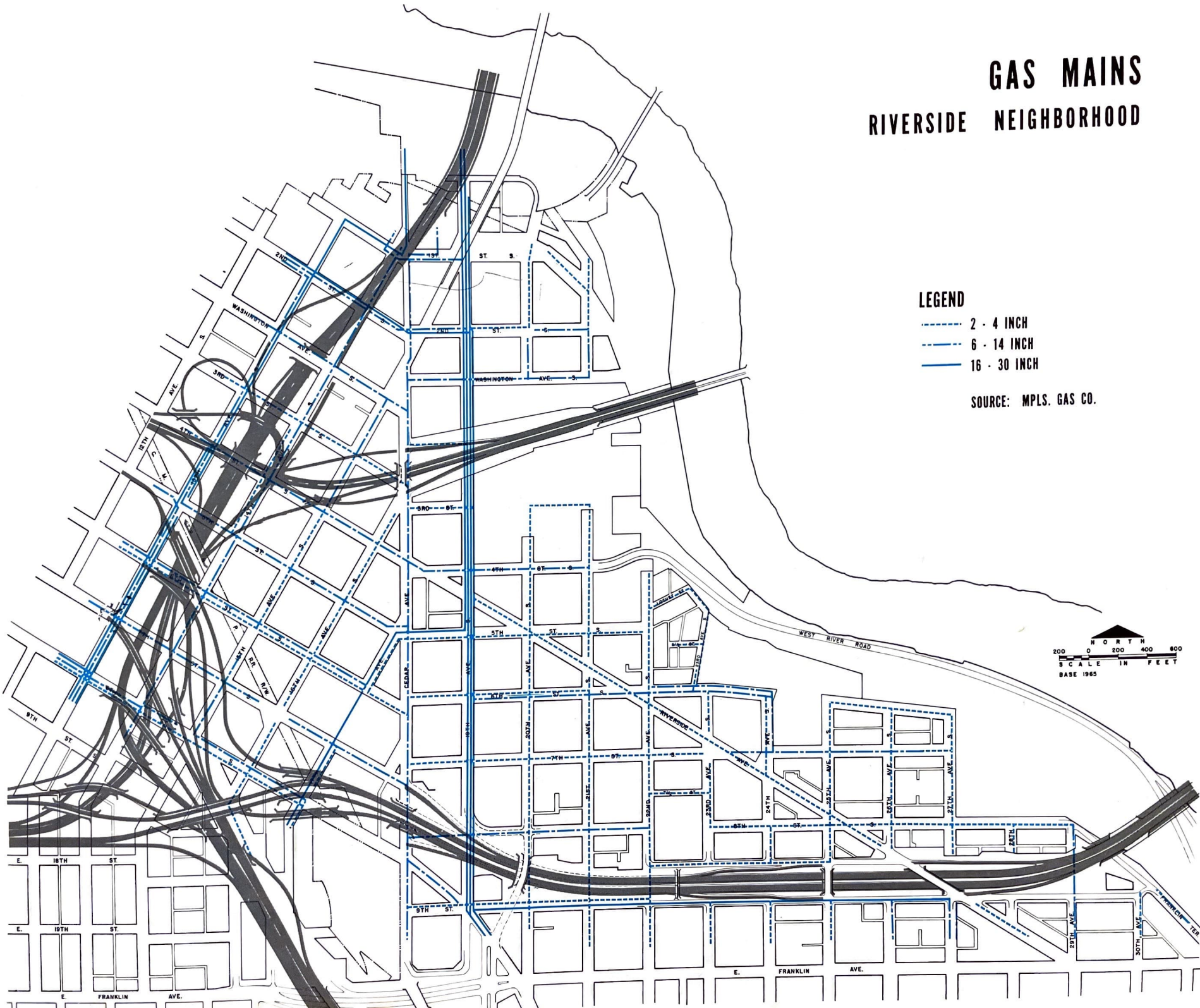
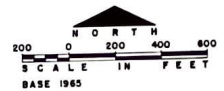
GAS MAINS

RIVERSIDE NEIGHBORHOOD

LEGEND

- 2 - 4 INCH
- 6 - 14 INCH
- 16 - 30 INCH

SOURCE: MPLS. GAS CO.



STORM SEWER RIVERSIDE NEIGHBORHOOD

SANITARY AND
STORM COMBINED

STORM ONLY

12 - 24 INCH



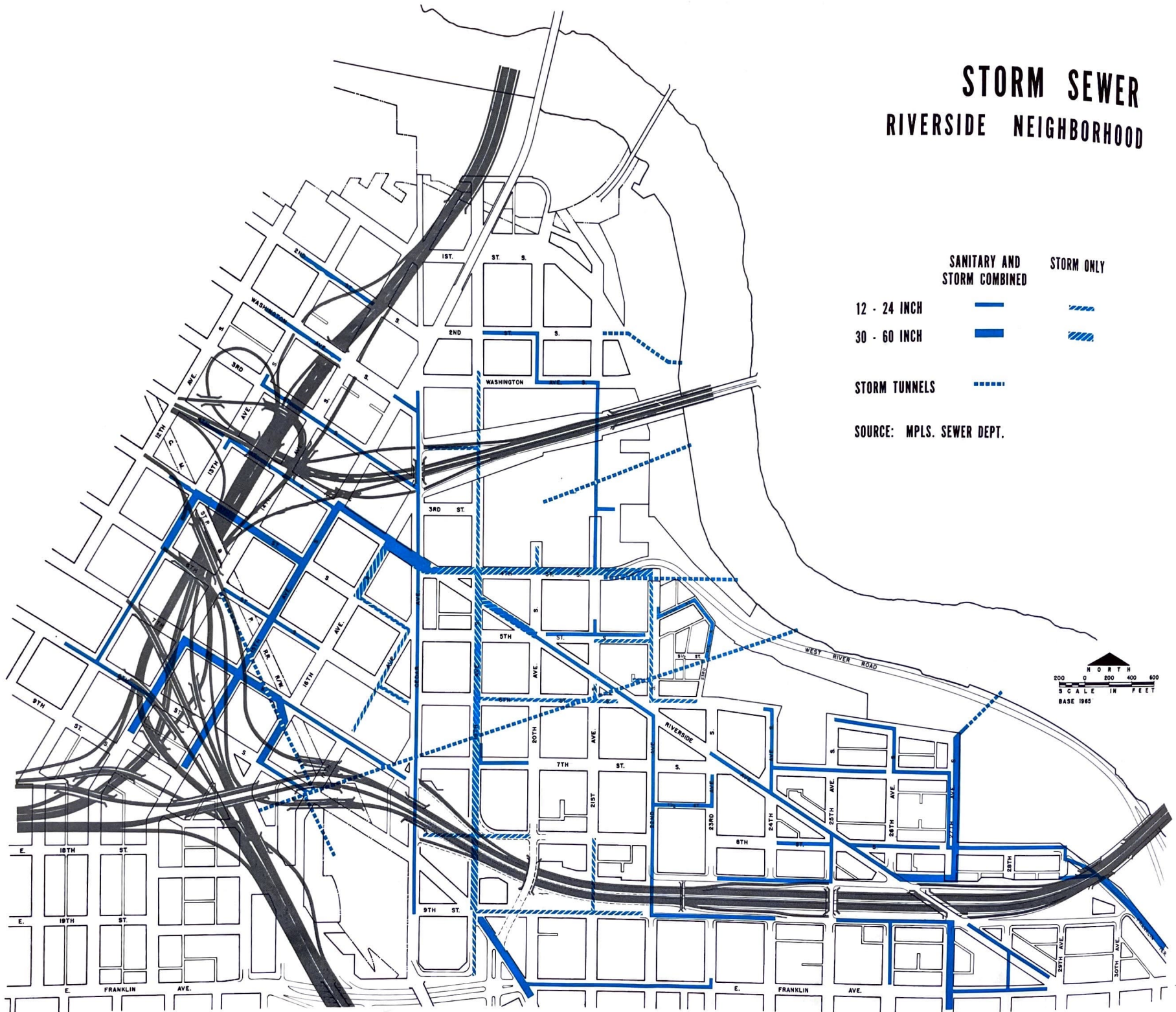
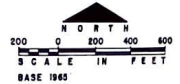
30 - 60 INCH



STORM TUNNELS



SOURCE: MPLS. SEWER DEPT.



visually undesirable, but they are also dangerous to residents in the event of accidents or natural disasters and to firemen in the event of fire. Deaths caused by firemen or their equipment coming into contact with overhead power lines have led, in other cities, to the prohibition of above-ground power lines in heavily built-up or new areas. Other cities have, without the spur of fatalities, prohibited above-ground power lines to eliminate the danger from this type of power transmission.

An expansion of telephone service capacity, including a major underground line through Riverside, is currently being undertaken. It is anticipated that this line will remain within utility easements whenever existing streets are closed. Changing land use areas, increasing population, and institution expansion will require alterations in Riverside telephone service facilities as well as for the other utilities.

Social Services

The future residents of Riverside will need a different mixture of social services than have been rendered in the immediate past.¹⁴ Pillsbury Citizens Service will be moving out of the Neighborhood; however, it will still be able to provide social services to some families and children, group and recreation services,

¹⁴. See Riverside - Challenge and Opportunity, pp. 85, 128, for discussion of social services rendered in Riverside during recent years.

and resident camping programs. There will continue to be a need for Old Age Assistance, Relief and nursing services. There will probably be an increased use of adoption service, scouting, YMCA-YWCA services, and First Aid and Water Safety training. Day care facilities for the children of students and other working wives will be required as the Neighborhood is developed.

Until the Neighborhood is rebuilt there will be a sizable need for relocation and personal assistance and counseling. This will be true whether existing housing units are purchased by individuals or as part of a City program. The City is required by law to provide assistance by locating housing and by aiding in paying moving expenses to owners and tenants displaced by public projects. Persons displaced by public action also have priority in obtaining low-rent housing. Those who are displaced by private rebuilding efforts are not eligible for public aid in relocating nor is the private developer required to assist them, although he may if he wishes.

Fire Protection

Fire protection facilities are adequate at this time. As the Neighborhood develops, it may be desirable to add selected pieces of equipment reflecting the changing character of structures and the increase in housing units, population and building value.

CIRCULATION PLAN

The present circulation system is inadequate to meet the future circulation needs of the Neighborhood, which, with its educational and medical institutions, will be one of the major traffic-generating areas in the Twin Cities. The Circulation Plan map shows a system that is tailored to meet the specific future needs of Riverside.

Roadways

The Circulation Plan alters the existing street network only as much as is necessary to eliminate most of the present problems while meeting the needs for circulation and access to property. For example, it is recommended that most of the present acute-angle intersections and the multiple-street intersections, such as Seven Corners and Cedar-Riverside-Fourth Street be modified to provide for safer, easier vehicle and pedestrian movement without requiring more than minor changes in existing rights-of-way. (See Alternatives Chapter, Sections C, D and E.)

As noted in the Analysis Report, an excessive amount (33 percent) of valuable land is presently devoted to streets and alleys. The Circulation Plan proposes a reduction from the present 15 miles of streets to 5 miles, a large part of which represents a reduction in the amount of local streets. Nearly two miles of parkway are also proposed. The percentage of Riverside land area in streets will fall from 33 percent to 21

percent. Even when half of the border freeway is considered to be within the Neighborhood, the percentage of land in streets falls from the current 33 percent to about 29 percent under the recommended Land Use and Circulation plans. (See Appendix F.)

In order to provide appropriate levels of service, streets have been classified by function into five of the six categories used to classify Minneapolis streets.¹⁵ The categories are:

Freeways . . . devoted to traffic movement and provide no direct access to property. Intended to handle large volumes of longer, high-speed trips. Have completely controlled access, multiple lanes, and divided roadways.

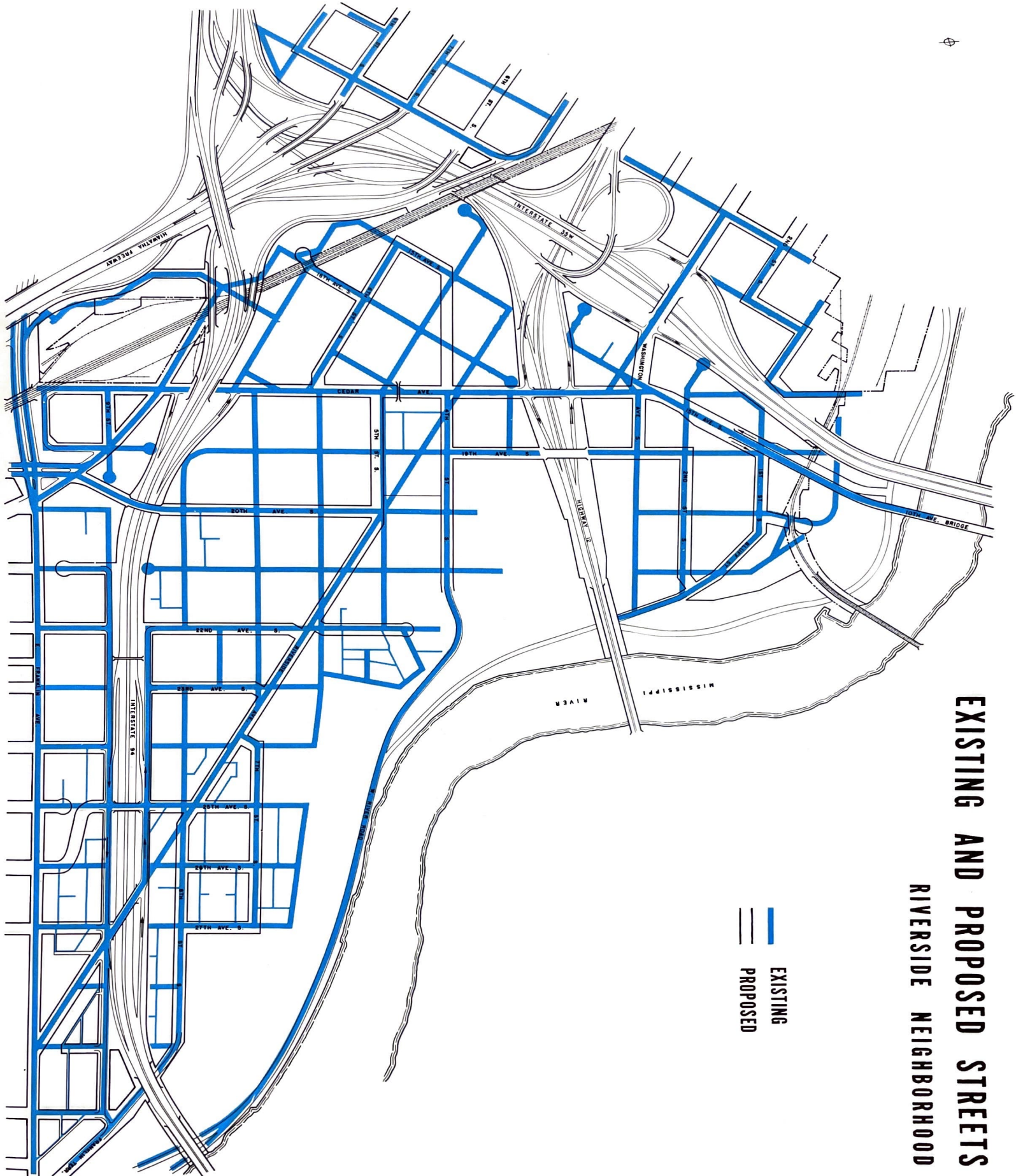
Expressways. the same as freeways, except that access control is not complete.

Arterials. . . connect with freeways and expressways and distribute traffic to and from collector streets. Handle medium-distance trips not using freeways. Provide property access at points of concentration.

^{15.} For details and standards of the classification system see, Planning and Design Standards for Minneapolis Streets, a report developed jointly by the City Engineering Department and the Minneapolis Planning Commission.

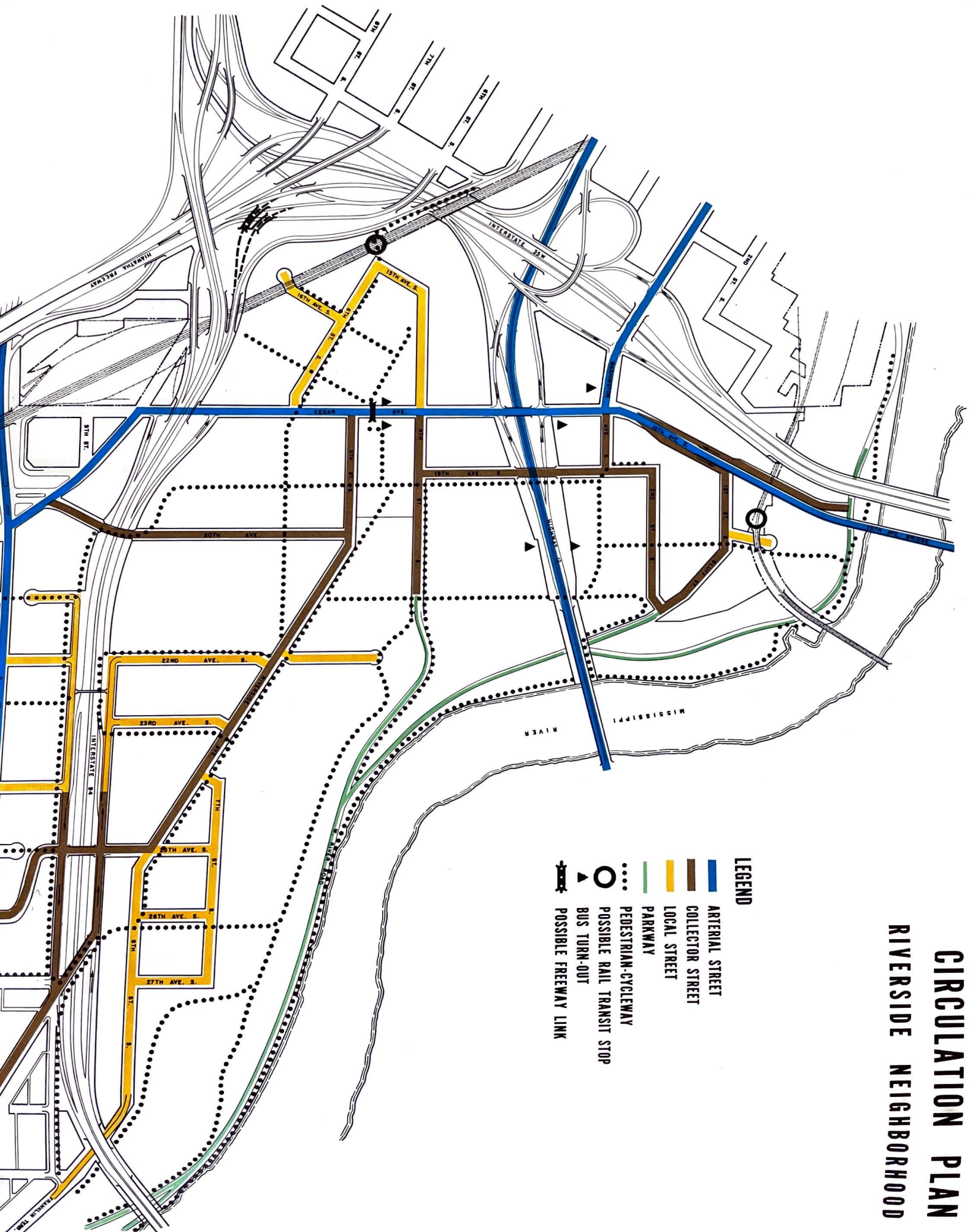
EXISTING AND PROPOSED STREETS RIVERSIDE NEIGHBORHOOD

EXISTING
PROPOSED



CIRCULATION PLAN RIVERSIDE NEIGHBORHOOD

- LEGEND**
- ARTERIAL STREET
 - COLLECTOR STREET
 - LOCAL STREET
 - PARKWAY
 - ⋯ PEDESTRIAN-CYCLEWAY
 - POSSIBLE RAIL TRANSIT STOP
 - ▲ BUS TURN-OUT
 - POSSIBLE FREEWAY LINK



Collector-

- Distributors • carry the internal neighborhood traffic and ordinarily distribute it between local and arterial streets.

Local. Provide access to property and should be laid out to discourage through or unrelated traffic.

Parkways are for pleasure and recreational driving -- not a part of the major street system. Usually connect parks and lakes in the city or are located along areas of natural beauty such as the Mississippi River.

Major Streets

The major streets section of the Circulation Plan operates within the limits of the Interstate Freeway system as developed by the State Highway Department in 1956 and subsequently refined. The sections of the Interstate system that will border Riverside on the south and west are accepted as constraints that will be constructed, largely as currently planned, within the next five to six years.

Freeways

1. Interstate 35W (I-35W) will be a depressed freeway bordering Riverside on the west with on- and off- ramps at Washington Avenue

and present Fourteenth Avenue South. The northbound off-ramp at Washington Avenue will probably be the major entry point for freeway traffic entering the Neighborhood.

2. Interstate 94 (I-94) bordering Riverside on the south will be depressed east of Ninteenth Avenue and elevated to the west where it passes over Cedar Avenue, the Milwaukee railroad, and the Hiawatha Freeway before merging with Interstate 35W.

3. Hiawatha Freeway or Highway 55 will pass within a few blocks of the southwest corner of Riverside before it both merges with 35W and continues on to Downtown via Seventh and Eighth Streets.

4. Highway 12 or new Washington Avenue is a freeway-type facility in Riverside which bisects the West Bank campus and severs the existing Seven Corners commercial area from the Cedar-Riverside commercial uses. It will actually function as an arterial street.

It is recommended that provision be made to allow westbound traffic on Interstate 94 to enter northbound Interstate 35W without cutting through Riverside Neighborhood. There are two alternative methods for realizing this proposal:

1. Link either the westbound lanes of I-94

or the westbound I-94 exit ramp to Fifth Street South with the northbound Hiawatha Freeway and I-35W ramp which exits at Washington Avenue. This link would require a bridge over the ramp which brings eastbound Sixth Street traffic into I-94. This method would not bring westbound I-94 directly into northbound I-35W -- vehicles would have to come up to and cross Washington Avenue at grade before entering I-35W via the northbound on-ramp at Washington. This link would also provide direct access to the suggested Seven-Corners parking ramp for westbound I-94 traffic bound for the University and Seven Corners.

2. Link either the westbound lanes of I-94 or the westbound I-94 exit ramp to Fifth Street with the northbound lanes of the Hiawatha Freeway before it merges with northbound I-94. This link would also require one bridge; however, it would be somewhat longer than in the first alternative because two freeway ramps would have to be crossed. This direct access from westbound I-94 to the northbound I-35W leg of the Inner Belt would remove all such movements from the streets of Riverside.

An alteration of the present network of streets is necessary to keep the Neighborhood from being choked by traffic. The network of streets in Riverside must be designed by type according to the adopted standards. (See Appendix D, Table 1.)

Arterials

Due to the freeways and the need for both efficient circulation and the protection of the Neighborhood, the present number of arterials should be reduced to those indicated on the Circulation Plan, including Highway 12, although it is actually a freeway-type street in Riverside. All of the indicated arterials now carry large volumes of cross-town or intercommunity traffic and will continue to do so in the future. They will also carry traffic to and from the Neighborhood itself.

Curb parking substantially reduces the traffic-carrying capacity of streets and is wasteful in terms of both time spent in traffic jams and money spent to build streets to carry traffic. Curb-parking should not be permitted on the arterials in Riverside.

1. Franklin Avenue. Although Franklin is outside the Neighborhood, it is relevant to the circulation system. It is expected to continue to function as an arterial south of Riverside Neighborhood in the foreseeable future and will, together with Cedar Avenue, provide a route across the Neighborhood.

2. Washington Avenue (West of Cedar Avenue). This arterial connects Riverside with Industry Square and Downtown. It is recommended that six traffic lanes be maintained from Cedar Avenue westward to at least the bridge over Interstate 35W. In addition, a bus turn-out lane

should be provided for eastbound buses at Cedar Avenue.

3. Minnehaha-Cedar Avenue-Cedar Avenue Bridge. Will remain as the only arterial bisecting the Neighborhood at ground level, and will carry the greatest volume of traffic (except for Highway 12) through, to, and from Riverside. It connects Riverside with the rest of the University Community and with Seward Neighborhood. By 1985, the traffic volume on Cedar Avenue will probably be about 25,000 vehicles per average day. No curb parking should be allowed on Cedar Avenue in order that it may carry the projected traffic efficiently and justify the expenditures for construction and maintenance.
 - a) Future traffic demands at and near the intersection of Cedar and Washington Avenues will require modification of the present Seven-Corners intersection. Alternative modifications are shown, at a general level, in the Alternatives Chapter, Section E.
 - b) Bus turn-outs should be provided along Cedar Avenue. One each on the east and west of Cedar, adjacent to both the shopping center and the proposed pedestrian overpass would be desirable. In addition, a turn-out is needed on the east side of Cedar Avenue near Washington.

4. Highway 12 (New Washington Avenue). Links the east and west areas of the University and will provide vehicular access to and from Industry Square and Downtown. Turn-outs are now provided for both east and westbound buses at approximately Twentieth Avenue South within the West Bank campus.

Collector-Distributors

Collectors are intended to function as streets that carry Neighborhood traffic to or from arterials. In Riverside, they also link Neighborhood traffic with freeway ramps. A properly designed system of collectors discourages the use of Neighborhood streets by through traffic and thereby reduces traffic congestion and the disruption of Neighborhood activities.

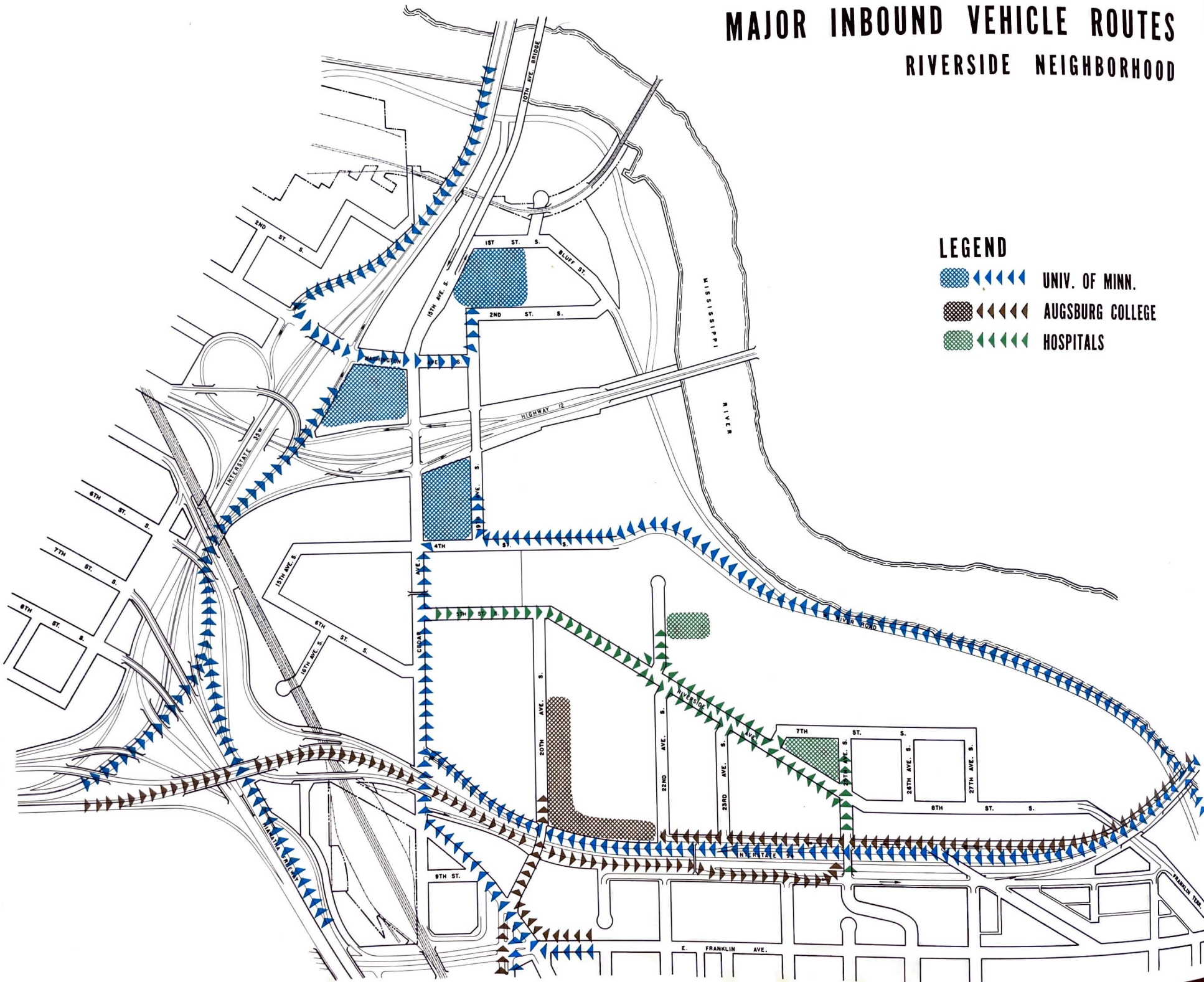
1. Riverside Avenue. Should be a collector rather than an arterial. The Highway Department's decision to provide a westbound exit ramp from Interstate 94 at Cedar Avenue makes the reduction in the use of the exit ramp at Riverside and thence the use of Riverside Avenue not just a desirable goal, but a realistic possibility. The plan recommends that, to realize this desirable possibility, Riverside Avenue be closed between 8th Street and Interstate 94 north frontage road. (See Alternatives Chapter, Section D.) This closing would lead to a number of results including:

MAJOR INBOUND VEHICLE ROUTES

RIVERSIDE NEIGHBORHOOD

LEGEND

-  UNIV. OF MINN.
-  AUGSBURG COLLEGE
-  HOSPITALS



- a. Over an acre of land would be freed for more productive development. For example, a million dollars worth of apartments could be constructed.
- b. Traffic which currently uses Riverside to get to and from Downtown or the southeast would be encouraged to use Franklin and Cedar Avenues where its undesirable impact on the Neighborhood would be less.
- c. Interstate 94 traffic to and from the University, Seven Corners, and West Cedar would tend to use the Cedar Avenue ramps and Cedar Avenue rather than cut through the Neighborhood along Riverside Avenue.
- d. Interstate 94 traffic bound for the hospitals, Augsburg, or the east end of the Neighborhood could still use the Riverside and 25th Avenue freeway ramps.
- e. Access to and from Interstate 94 by traffic from Seward Neighborhood would continue and be eased on at least one ramp.
- f. The present hazards of the semiblink intersection of the westbound I-94 exit at-Riverside with traffic over the Riverside bridge would be lessened.

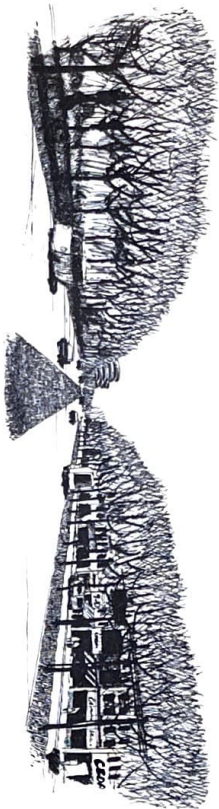
- g. The present confusing and potentially dangerous intersection of Eighth Street, Twenty-fifth Avenue, and Riverside Avenue would be simplified to a four-way intersection. The coming together of traffic streams on Riverside, Eighth Street, and Twenty-fifth Avenue, such as presently occurs at Fourth Street, Cedar, and Riverside, would be avoided.
- h. The volume of traffic on Riverside Avenue would be less than the projected 10,000 vehicles per day by 1985 and this traffic would consist mainly of persons who had business within the Neighborhood, particularly the eastern half, and not merely those who would otherwise use it as a shortcut across Riverside Neighborhood.

Riverside Avenue should also be closed between Twentieth Avenue and Cedar to continue the policy of discouraging through traffic and to provide land for more productive development. This would eliminate the present acute-angle intersection of Cedar, Riverside, and Fourth Street and replace it with the right angle intersections of Cedar and Fourth Street and of Cedar and Fifth Street-Riverside.

The Neighborhood shopping center would then occupy about five acres (1.9 of

which are currently streets or alleys) on a unified site and would have convenient access from two collectors, both Fourth Street and Fifth Street, and would be bounded by the major Neighborhood arterial -- Cedar Avenue.

2. 19th Avenue South. Will serve as a collector for University traffic and will provide access to parking areas in the near future. It seems probable that Nineteenth Avenue should be carried over Highway 12 in the future; however, as the West Bank campus is built up, an analysis of traffic movement will be needed to determine the necessity of a vehicular bridge. In any event, a pedestrian overpass should be provided at approximately Nineteenth Avenue if the highway is not bridged over, both to link the western ends of the north and south sections of the campus and to increase accessibility of the shopping center.
3. 20th Avenue South. Will provide access to Augsburg College and the shopping center from the eastern half of south Minneapolis and the southern suburbs. It will also serve as a collector for the South Riverside residential area which should be served mainly from Twentieth Avenue rather than from Cedar. It should not extend north of Fifth Street in order that its use by University-bound traffic will be discouraged, thereby simplifying internal circulation and reducing congestion near the shopping center.
4. 1st Street South-Bluff Street-15th Avenue One-Way Pair. Will serve to collect traffic from the Bluff Street residential area, from Riverside Park, and from the Bluff Street extension of West River Road and will feed it, via the one-way pair flanking the Cedar Avenue Bridge, to and from the Cedar Avenue arterial. This is an important element in the street system because it allows through-traffic from River Road to pass through the Neighborhood with a minimum of disruption. The one-way pair makes it possible to eliminate left turns from 15th Avenue between Washington Avenue and the Cedar Avenue Bridge.
5. 4th Street South. Will provide a link with Cedar Avenue and West River Road for traffic to or from the University and the shopping center.
6. 5th Street South. Continues the Riverside Avenue collector, bringing it to a right-angle intersection with Cedar Avenue. Also will provide access to the south side of the shopping center. Depending upon the need for space in the shopping center, it may be desirable to move the Fifth Street right-of-way to the south of its present location. (See Alternatives Chapter, Section B.)



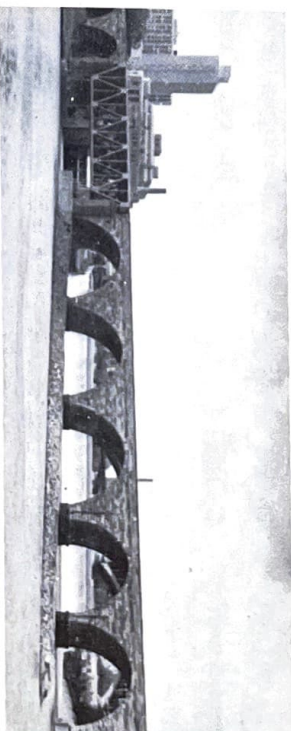
Local Streets

All, except a few blocks, of the proposed local streets will have to be paved; however, with one exception, all proposed local streets use existing right-of-way. The exception is the proposed loop street in West Cedar which would require approximately two blocks of construction along new east-west alignment of Fourth Street. However, the loop will also utilize four blocks of existing right-of-way. (See Alternatives Chapter, Section C.)

It is recommended that local streets which presently intersect Cedar or Riverside Avenues at acute angles be modified to intersect at the right angles. This will reduce some of the traffic hazard presently associated with these intersections.

Parkways

West River Parkway should be extended north along the Mississippi River gorge to open St. Anthony Falls and the spillway areas to public view and enjoyment. The River gorge between Riverside and the Third Avenue Bridge contains the greatest concentration of waterfalls and spillways in this part of the State,



most of which are now seen by only the few people who work in establishments along the River. This represents a gross under-use of the River gorge which, although a logical result of the original industrial development of this part of the gorge and years of inattention, can and should be remedied in the near future.

It will be necessary to obtain land for the parkway extension in portions of the section

between Riverside and Third Avenue South. The bluff itself to the top should either be acquired in fee simple, or scenic easements should be obtained in order to allow cleaning up this potentially beautiful area to provide a setting for the parkway. Existing industrial uses on top of the bluff are expected to remain, being screened by additional trees wherever appropriate.

Roadway already exists along the River for most of the distance upstream from the barge terminal to Third Avenue South at the Main Post Office. Some filling would be required where the existing roadway is narrow, but the topography favors a parkway in the gorge between the River and the bluff. It is recommended that a detailed study be conducted as soon as possible to determine the feasibility of acquiring easements to extend West River Parkway through Riverside and on to Third Avenue South. Coupled with a long-range program for cleaning up the River gorge, this potentially beautiful area could be opened to public view and enjoyment.

Truck Routes.

Truck routes in Minneapolis are designated by the City Council. Trucks of a gross weight of three tons or more are required to stay on such routes except "when it is impractical to do so or where necessary to traverse another street or streets to a destination for the purpose of towing a disabled, damaged motor vehicle to or from public or private property, and then only by such deviation from the nearest truck route as is reasonably necessary."¹⁶

It is recommended that as freeway construction advances, in order to provide continuity of City-wide truck routes and to protect the Neighborhood, the following streets be continued as truck routes:

Washington Avenue--westward from Cedar Avenue
Highway 12--all
Minnehaha Avenue--Cedar to Franklin
Cedar Avenue--Minnehaha to Washington
15th Avenue--Washington to Cedar Avenue Bridge
Franklin Avenue--Cappelen Bridge to Cedar Avenue

It is recommended that neither Riverside nor Twenty-fifth Avenue South be designated as truck routes in order to limit the disruption of neighborhood life by truck traffic to that disruption caused by trucks making local deliveries.

Pedestrian and Bicycle Paths

In order to provide safe, convenient access to and from the institutions, the commercial areas, and to parks, a system of pedestrian-cycle paths is recommended. This system, shown on the Circulation Plan map, will link the residential areas in Riverside, in Seward, and on the east bank with the West Bank campus, Augsburg, the shopping center, Industry Square, the hospitals, Riverside Park, and Murphy Square. Such a system will have a number of positive effects including:

1. A reduction in the number of vehicles, from within cycling or walking distance, that would otherwise enter the Neighborhood and require parking space.
2. A safer pedestrian or bicycle trip, with a minimum number of points of conflict with

¹⁶. City Ordinance 414, Trucks and Truck Routes.

vehicular traffic which would make Riverside a more desirable living area.

3. Increased accessibility to the shopping center from within the local market area and, therefore, a greater penetration of the local market.

4. Greater accessibility and encouragement to residents to use and enjoy Riverside Park. Four access paths to the River are proposed, three of which would carry bicycles as well as pedestrians.

5. The proposed path along the top of the bluff, running northwest from approximately Sixth Street and Twenty-seventh Avenue to the West Bank campus, would not only link the Riverside Park area with the West Bank campus, but it would also provide enjoyable views of the River and of the east bank to the general public. It would also function as part of a loop walkway, half of which would be along the River and the other half along the bluff.

6. The proposed path to Industry Square would result in much shorter walks to work for those, including students, who will be employed in the southeast end of Industry Square. It would also link the possible rail transit stop with Industry Square in the event that the system referred to in the following section comes into being, which would mean only one stop to serve both Industry Square and the University.

The proposed paths lie largely along existing street rights-of-way, in some cases where utility easements must be maintained anyway, or in park and proposed park land; therefore, acquisition should not be a difficult problem. It is recommended that the combined pedestrian-bicycle paths vary in width depending on potential use, but that they nowhere be less than eight feet wide, and that the pedestrian section be of a slightly rough texture such as smooth cobblestones, bricks, or stones while the bicycle portion should be of smooth concrete. All paths should be well-lighted and designed for security to enable the many evening and night staff members to use them in safety. Where necessary, the paths should be able to accommodate emergency vehicles.

[illegible]

 LAKES AND RIVERS
 POLITICAL BOUNDARIES
 FREEWAYS
 RAILROAD LINES

MASS TRANSIT

Within the next ten to fifteen years, Riverside and the East Bank campus combined will be one of the major traffic-generating areas in the Twin Cities. This area will probably be either the origin point or destination of at least 90,000 to 100,000 trips per day in addition to trips that pass through the area without stopping. (See Appendix E.) A considerable proportion of these trips will be made by private auto, but the potential exists, given an effective network of mass transit service, for a substantial volume of these trips to be handled by mass transit.

Bus transit

The present network of bus lines does not adequately serve the Riverside-University area. Only a half dozen routes in Minneapolis and St. Paul, as shown on the Existing Bus Service map, provide nontransfer service to within walking distance of the campus and, given the inclement weather during most of the school year and the waiting time at transfer points, most of the remaining routes are of very limited use to commuting students. The suburbs have service in only limited areas and this service does not compete, particularly in terms of travel time, with the private auto.

Bus service throughout the city and the metropolitan area is generally not competitive in terms of time with the private auto because under present conditions a bus is slowed down

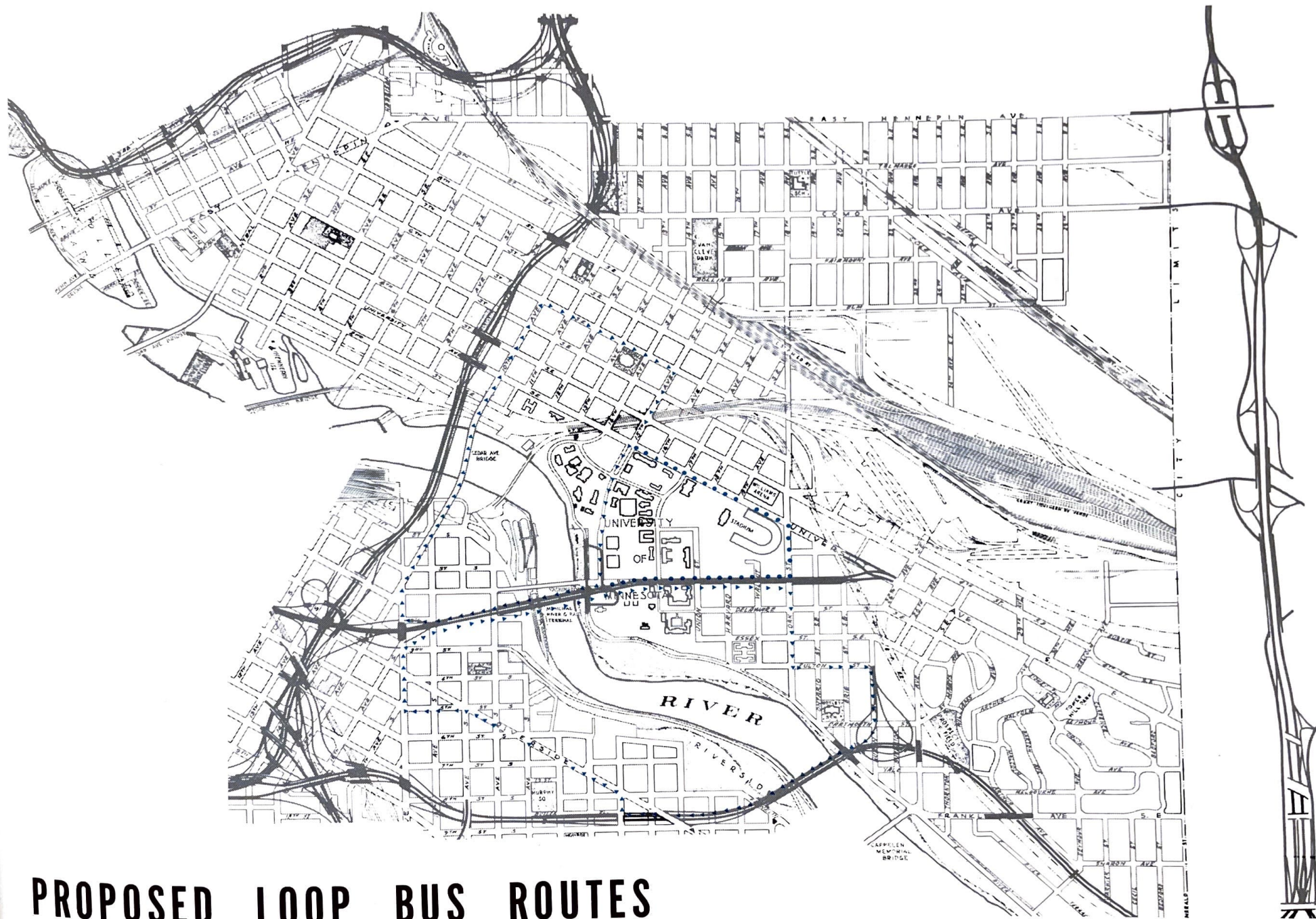
by traffic congestion even more than is a private auto. The system of existing and proposed freeways, shown on the Freeway--Expressway and Rail Network map, could provide part of a solution to the slow average speed of buses, thereby aiding them in becoming more competitive and better utilized. With the addition of facilities for bus loading and unloading, the freeway system could provide routes for a network of express-buses which could have a focal focus -- on Downtown and on the Riverside-University area. The Riverside-University area alone has a considerably greater number of potential express bus riders than does Metropolitan Stadium which presently has limited express service. (See Appendix E.)

Local Loop Bus Proposal

It is recommended that the feasibility of providing loop bus routes within University Community be examined. Possible routings for a pair of clockwise loops are shown on the Proposed Loop Bus Routes map. Such a system, by linking residential areas on both banks of the River with educational, medical and commercial facilities on the opposite bank, would provide not only greater flexibility in the choice of housing and place of business, but would also provide greater flexibility in the scheduling of classes and in the utilization of facilities. As mentioned earlier, it would also link the residential areas with Marshall Junior-Senior High School.

[illegible]

-  PRIMARY BUS LINES
 SECONDARY BUS LINES
 LAKES AND RIVERS
 POLITICAL BOUNDARIES
 FREEWAYS



PROPOSED LOOP BUS ROUTES

One of the factors that should influence the determination of the feasibility of the proposed local loop buses is whether or not an effective pedestrian-bicycle network is developed. If it is not, it appears to be virtually mandatory that an alternative, in the form of small or mini-buses running on a loop system similar to the one proposed, be provided.

Rail Transit

The Freeway--Expressway and Rail Network map shows that the Riverside-University area is well-situated in relation to any rail transit system, based upon existing railroad rights-of-way, that might be developed to serve and link both downtown Minneapolis and St. Paul. The recommendation of such a system is beyond the limits of this report; however, it is recommended that the two "possible rail transit stops" shown on the Circulation Plan map be reserved pending further study of the rail transit question. Such study should not delay the development of the express bus system suggested in the Bus Transit section.

Parking

Parking has the potential of being an enormous problem in Riverside unless appropriate actions are taken. The degree to which this potential problem becomes an actual difficulty depends upon the actions taken relating to:

1. Provision of nearby student and staff housing. The potential demand for commuter parking space can be reduced

by six to nine thousand spaces if the recommended development of moderate-rent housing for students and staff is carried out.

2. Provision of walk-bicycle paths. Will aid in reducing the number of commuting cars by providing safe, cheap, and easy access from residential areas in Riverside and Seward Neighborhoods. Given an adequate supply of accessible housing at appropriate rentals, the number of potential commuters can be reduced.
3. Mass Transit. If conditions can be altered to make mass transit more competitive with the private auto, the increased use of transit would result, by conservative estimate, in a reduction of 2,500 to 3,000 in the potential demand for parking spaces in Riverside.
4. Off-street parking. A conservative estimate of the potential demand for parking indicates that the number of spaces tentatively planned by the institutions will be short of potential demand by 1980.¹⁷ However, with development of the recommended housing and increased use of mass transit this gap could be reduced and even eliminated. It is recommended that the major institutions explore the feasibility of, and the degree to which they could:

¹⁷. See Riverside - Challenge and Opportunity, pp. 99-100, 129.

- a. Insure the development of the recommended supply of moderate-rent housing in the Neighborhood.
- b. Combine an effective program for reducing the number of commuting student autos with a program for the support of mass transit.

Both of the above programs would reduce the need for providing parking space on scarce and relatively valuable land. The average cost of land in Riverside is currently high enough to indicate that parking ramps rather than lots will be the more economic form of parking space.

The two areas shown on the Land Use Plan map as "Parking" in the University area are only large enough to provide about 1,100 open-lot parking spaces. (Each parking space is assumed to require a gross area of 330 square feet for parking and driveways.) Although the two areas occupy 10 percent of the West Bank, they would provide only one-fourth of the spaces that the University tentatively proposes to have by 1980. If, however, four-level parking ramps were constructed, some 4,500 parking spaces could be provided on the same amount of land.

A University committee is now studying the traffic and parking situation of the University. The Committee is expected to report

its findings and recommendations at the end of this year. It is assumed that one item studied will be the proposal to construct parking ramps over freeways at or near interchanges. There are various problems, depending upon the specific location, presented by such a proposal; however, such a development is not suggested here because of the economics involved.

The present cost of conventional construction of an over-freeway ramp is very high at \$25 or \$33 per square foot, depending upon whether or not the structure must be ventilated, compared to more conventional ramps which cost about \$5 to \$6 per square foot. The present cost of property in Riverside is far too low to economically justify the extra \$20 to \$28 per square foot cost of an over-freeway parking structure. An over-freeway ramp, ventilated, for 4,000 cars would cost some \$43,560,000 to construct. The total cost of 4,000 spaces in ground-level ramps would be about \$12,600,000. It would actually be cheaper, in Riverside, to provide housing rather than over-freeway parking.

The Parking section of the Augsburg campus, some 6.2 acres, would provide about 800 parking lot spaces. A four-level ramp would provide an equal number of spaces on an acre and one-half, thereby freeing up to five acres for more productive development such as academic buildings or faculty housing.

Fairview Hospital plans to build an 800-car parking ramp in the area shown as "Parking" at approximately Fifth Street and Twenty-second Avenue. Current plans call for about an additional acre of open-lot parking. Based upon the use of present facilities and the anticipated increases in personnel and physical plant, it appears that a slightly greater number of spaces could be fully utilized.

The "Parking" area shown in the St. Mary's area would hold only 350 of the 500 spaces tentatively planned by the hospital. Given the anticipated expansion of the hospital and of the junior college, 500 spaces will be considerably less than are needed. A four-level ramp on the irregular block between the hospital and Riverside Avenue would provide about 880 spaces, which is more nearly the amount that the St. Mary's complex will require.

Commercial Parking

All commercial areas will need off-street parking. The Seven Corners commercial-residential area could be served by a parking ramp over commercial uses in the irregular block south of Washington and west of Cedar. This area could provide, using four levels, some 2,500 spaces for joint use by the commercial-residential area and by University-bound traffic. This ramp would have the advantage of being able to take University-bound traffic directly off the

northbound exit ramp of 35W, before the vehicles reached Washington Avenue and added to congestion on local streets. At least part of the parking for the Fourth and Cedar neighborhood shopping center could be provided in a ramp north of Fourth Street which could be used jointly by the center and the University.

There will be a temptation to reduce the amount of parking accompanying commercial uses. Yielding to this temptation would be harmful to businessmen in the Neighborhood as well as to the Neighborhood because it would lessen the accessibility, particularly by potential customers from secondary market areas, thereby reducing sales volume. Depending upon the specific uses that occupy the center, a minor deviation from current requirements might be desirable and the possibility should be evaluated if the shopping center is developed as a planned development as it should be.

Residential Parking

The requirements for residential off-street parking should be rigorously adhered to in Riverside. Some students will not have autos and it might be hoped that even more would not, but unless some novel restriction is placed upon the possession of autos by students living in both dormitories and apartments in Riverside, experience indicates that resident students will continue to have a large number of autos that they will try to park in the Neighborhood.

NEIGHBORHOOD ENVIRONMENT

It is imperative that Riverside be developed as a neighborhood that clearly expresses humanistic values. The non-human environment of chaos or technological sterility that results from a preoccupation with the short-run economic and political problems of expansion and rebuilding, at the expense of both short- and long-term social and aesthetic responsibilities to ourselves and to our heirs, must be avoided -- particularly in Riverside, because of the influence it will have in shaping Minnesota's youth for many years to come. The quality of living allowed by the environment is the most important consideration. The environment should allow everyone to perceive order, coherence and human scale as well as the social functions of this Neighborhood. The environment and image of Riverside should be supportive of individual, family, and community activities and of the social values that are basic to a viable urban society and economy.

All of the natural and man-made elements of an area form the physical environment while people, their beliefs and behavior, form the social environment. The physical and social environments constantly affect and change each other, sometimes for better, more often than necessary for worse. We have technology and ability but we too often rush through a quick, cheap answer when building things that will last beyond our lifetimes. Perhaps this is because our sense of responsibility is not as well-developed as our technical ability. We have also failed to make effective use of existing tools to keep our already built-up areas from deteriorating or to return deteriorated areas to productive use.

Riverside is presently an example of both the quick answer and the failure, over the last two decades, to use available tools. One of the results is shown by a recent study which shows that most metropolitan area residents would avoid showing the west half of Riverside to visitors.¹⁸ This unfortunate feeling of shame is due mainly to the present deteriorated appearance of the most visible sections of Riverside. It is doubly unfortunate because Riverside has the potential of being one of the more attractive sections of the City.

The long-term neglect and decline of Riverside Neighborhood should no longer be tolerated. The Neighborhood is becoming the site where one of Minnesota's most economically, as well as socially important products -- trained minds -- will be developed, and the environment should reflect the importance of this function to the State and to the metropolitan area, as well as to individuals. With the intelligent application of urban design principles by developers and designers engaged in the rebuilding of Riverside, a desirable, human environment with a coherent and unified visual image of positive character can be achieved for the Neighborhood without neglecting the need for individual distinction in the various subareas.

Major Environmental Assets

The Mississippi River and gorge, including the large Riverside Park, are Riverside's outstanding visual assets. They provide needed open space

¹⁸. "Livability Study", Background Report No. 1, CIP Urban Design Study, Minneapolis, p. 8.

and the actual or potential view of water and of the development east of the river. Although Riverside is basically flat, the river bluff provides a highly desirable topographic relief, which adds greatly to the character and design possibilities of the area.

Unfortunately, Riverside has no other visual elements which could be called major assets at this time. The Dartmouth bridge does provide the beginning of an attractive entrance to the area and the freeway will reduce the number of entrances that will have to be improved. The freeways also provide a unique opportunity to advantageously display the Neighborhood by making it visible to passers-by.

The potential exists for considerable structural relief that will alter the City skyline by adding highly visible buildings. The design and interrelationship of these buildings and the urban space around them will help or hinder the institutions in becoming the necessary physical and psychological focus of Riverside and will strongly influence the number and character of the people who will live in the Neighborhood.

Major Environmental Problems

Major problems, some of which are shown on the Riverside Image Problems map, include:

1. Much of the housing is inexpensively constructed, under-maintained, and represents a serious liability.

2. The commercial facilities, most of which were built before the turn of the century, are shabby and unattractive which not only detracts from the visual image but is also bad for business. If all the other commercial facilities in the Twin Cities area were in the same condition, Riverside might be competitive, but they aren't and it isn't.



3. There are too many ambiguous gateways to Riverside, that is entrances which do not readily indicate to the entrant that he is entering any particular area of the City. The freeway system will limit the number of entrances and provide an opportunity to develop several distinctive gateways to this potentially unique area.



4. Large portions of Riverside present a chaotic or characterless visual impression, particularly in areas of mixed land use. This impression confuses and repels the observer, who tends to dismiss the areas as a slum.

5. The waterfront is hidden from view in most of Riverside. Unless one walks through the hospitals it is necessary to descend the bluff before the River can be seen. This is unfortunate because the river gorge is the outstanding visual asset of Riverside. Selective cutting of trees part way down the bluff would open up views of the River and the development on the far side.



6. The waterfront area is poorly used from about Fifth Street north to the Third Avenue bridge. The rail, oil storage, and barge terminal facilities can and should be relocated in the Upper Harbor industrial area, both to encourage further development in that area, where sufficient land is available for other accompanying development, and to make way for redevelopment that would be more appropriate to the emerging character of Riverside.



7. Discontinuity characterizes the development along the arterial streets in Riverside; that is, there is no continuity of building type, form, or bulk, which would aid in giving positive character to these arterial paths. As mentioned earlier, paths form a dominant part of the visual image of an area and strongly affect the way that people think of that area. The image of Riverside can be

improved by concentrating and separating buildings by type, form, or bulk along the paths.

8. There are a considerable number of broken paths which require a number of not readily apparent changes in direction. The path from West River Road to downtown via Fourth Street, and then Third Street, or Washington Avenue and the path to the Tenth Avenue bridge from downtown via Washington are two examples of broken paths.
9. There are a number of confusing intersections and points of confusion where the coming together of from sixteen to twenty traffic lanes in from six to eight directions severely complicates the problem of driving safely. The worst of these intersections are surrounded by commercial uses and signs which tend to distract attention from the serious business of driving, without being able to demand undivided attention for the commercial message. Multiple path intersections should be minimized and the street and commercial signs modified to improve visual character.

There are other visual liabilities shown on the Image Problems Map which reduce the attractiveness and livability of Riverside. The construction of the freeways will alter the present visual image of Riverside and eliminate some of the present liabilities.

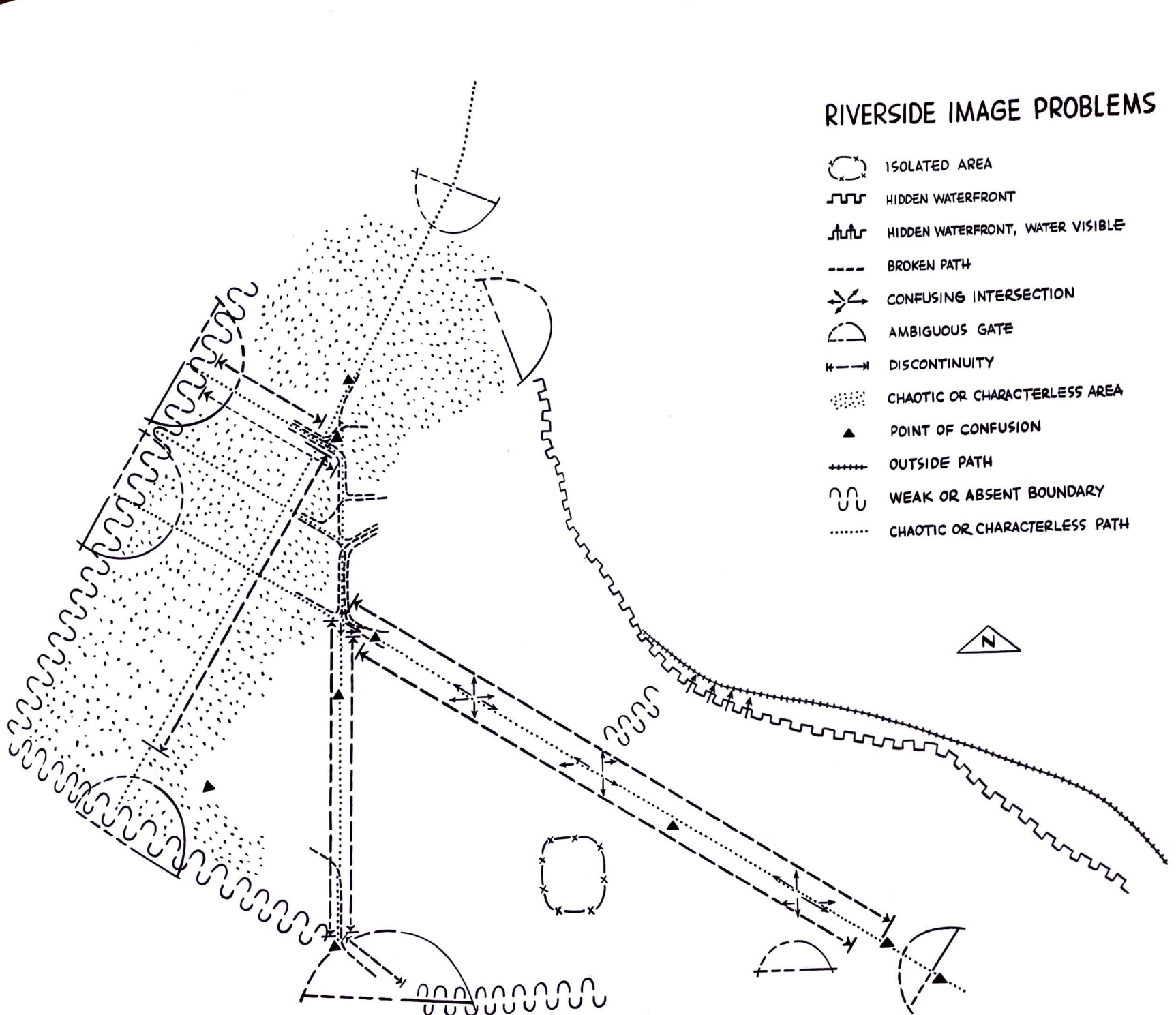
Environmental Design Proposals

This section contains a number of action recommendations aimed toward the development of a human-scale environment as requested in the Neighborhood goals statement.

Visual Image Elements -- Part of the neighborhood environment consists of what may be called visual image elements.¹⁹ The major perceived elements of an urban environment may be classified in one of the categories listed below. The Proposed Image - 1985 map shows a number of general proposals for beginning the development of a system of visual elements in Riverside. This system must recognize the new forces at work as well as the existing framework and the Neighborhood goals as well as the activities to be accommodated.

Paths may be streets, rail lines, walkways, rivers. Only those paths which will have substantial impact upon the Neighborhood or which will be most used by Neighborhood residents are indicated. Major paths from Downtown will be limited by the freeway network to Washington Avenue and the Fourth Street-Highway 12 eastbound off-ramp at Cedar. The extension of West River Road is also expected to function as a major path

19. For an explanation of theory and terminology, see The Minneapolis Community Improvement Program, Urban Design Study, Phase I reports, Minneapolis Planning Department, 1965.



around the Neighborhood. The section of Riverside Avenue remaining is expected to function as a major path for the Neighborhood population. Major elements of the walk-and-cycle-way network are also shown where they are either not parallel to vehicle paths or are expected to be visually significant in their own right.

Edges are usually boundaries between two kinds of areas. They may be bluffs, rivers, or prominent walls. Completion of the bordering freeways will provide major edges on the south and west which will aid in a strong delination of the Neighborhood. However, Highway 12 will form a less desirable major separation within the present commercial areas and the West Bank campus.

The selective trimming of trees along the bluff will have two major impacts upon the visual image. First, the major edge effect of the bluff will be lessened when it is possible to see beyond the tree line into and beyond the river gorge. Second, the effect of the River as an edge will become stronger as it becomes more visible.

Districts are relatively large city areas that have common identifying characteristics such as downtown Minneapolis. A number of strong districts should be developed including: hospitals, University, College, and River gorge districts. In addition, the Riverside Park and West Cedar-South Riverside areas should form distinct districts.

Nodes are strategic points that the viewer travels to, from, or through. Two examples are intersections or concentrations of use or physical character such as a shopping center. Major nodal points will develop in association with the Seven-Corners, Cedar-Riverside, and Riverside-Twenty-fifth Avenue shopping areas. Street furnishings and both public and private signs should be coordinated in order to present an attractive image to persons passing through or coming into these nodes. The remaining nodes represent the coming together of traffic at junction points.

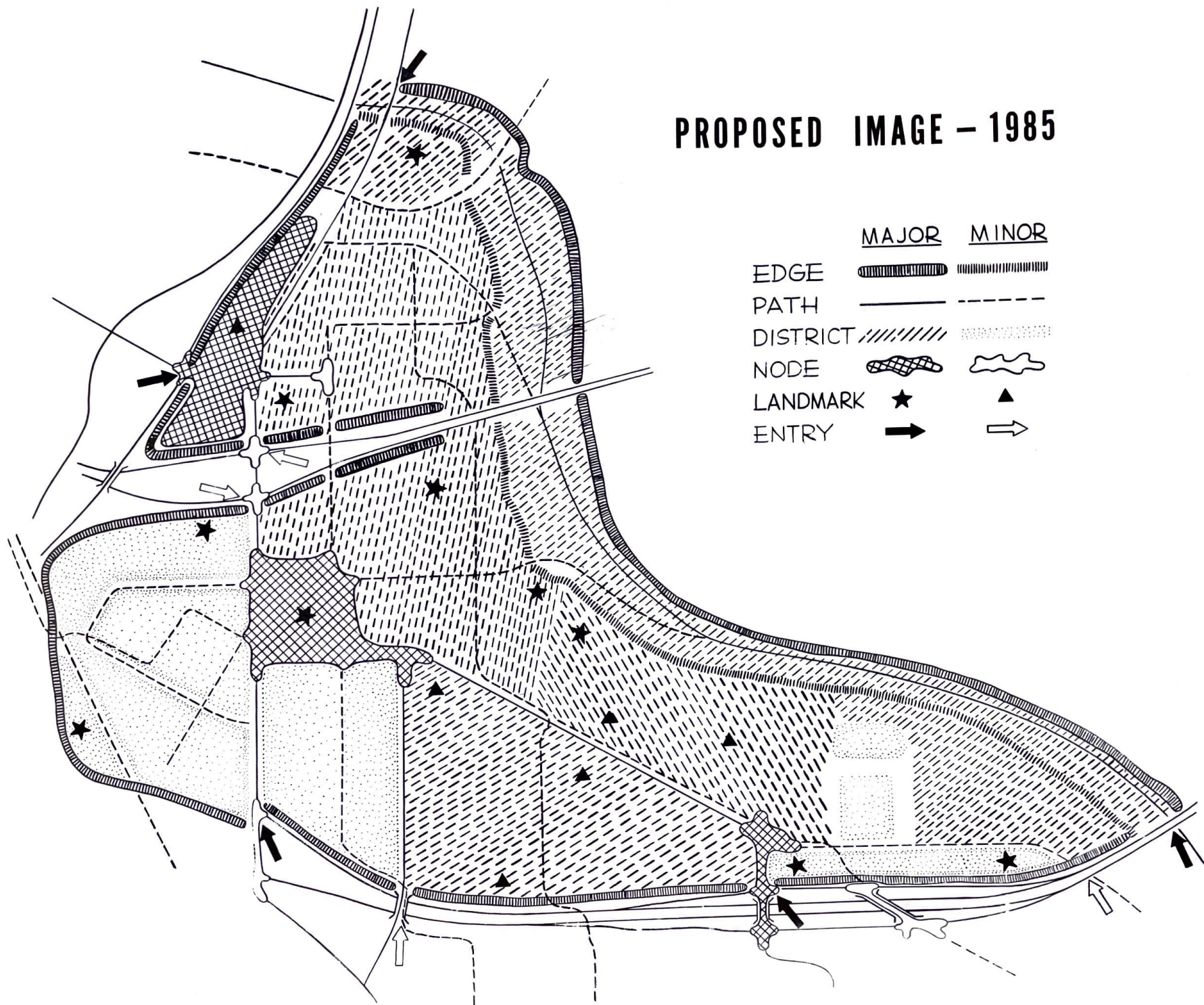
Landmarks are simple physical elements that are in prominent view such as high-rise apartments, office towers, grain elevators, and radio towers.

A number of locations for additional landmarks are suggested. In the suggested locations, landmarks would provide focal points, would aid in delineating the entire Neighborhood as a city-level district, and would help in providing a positive Neighborhood image.

Entry Points are vehicular or pedestrian entrances to neighborhoods or districts.

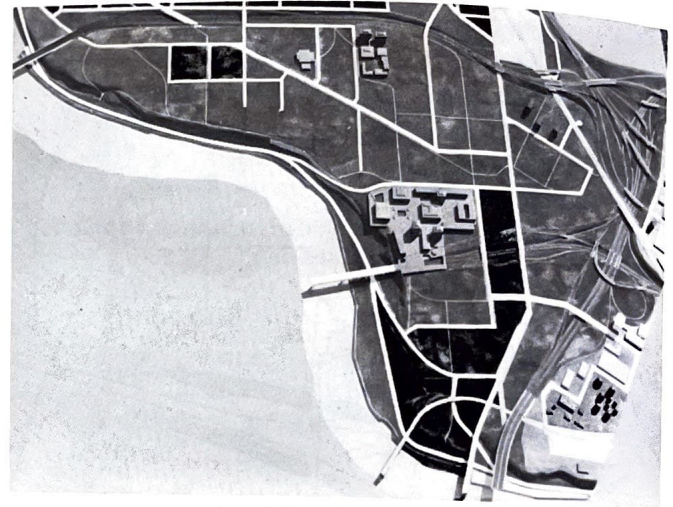
There will be five major and five minor entry points to Riverside Neighborhood. Each should be designed to give the best possible impression to persons entering. Signing, in particular, should be handled with sensitivity and confusing or chaotic backgrounds should be avoided.

PROPOSED IMAGE - 1985

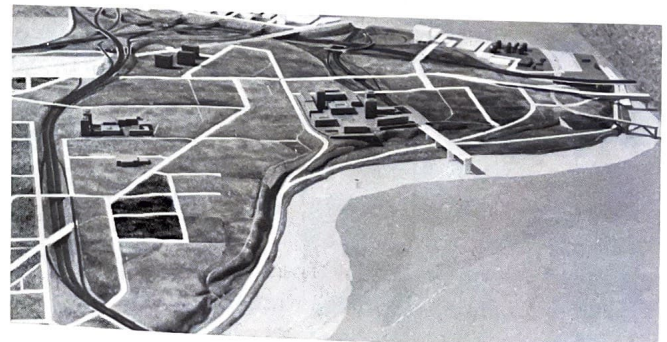


Environmental Design Committee--the design of Riverside Neighborhood is of importance to all citizens of Minnesota, present and not yet born. In addition to the general suggestions given already, it will be necessary to guide the design of the various districts and subareas to avoid a reduplication, in newer structures, of some of the chaos that presently exists. It is recommended that, in order to provide the minimum degree of guidance which is necessary, that the Planning Commission establish an environmental design committee as an aid to its deliberations. This committee could function as a review board for all development proposals in the Neighborhood and should have a strong design-oriented membership of city planners, landscape architects, and architects as well as representatives of the major institutions and developers.

Topographic Model--one of the many tools available to this committee and other groups during the continuing discussion of the development of Riverside is the topographic model shown on the accompanying pictures. This model, with a vertical and horizontal scale of 1 inch equals 200 feet, is available for inspection or the testing of general design concepts and will be presented at meetings of groups involved with the future of Riverside Neighborhood.



Looking South



Looking West

None of the above elements exist alone, but are a part of a larger entity -- the Neighborhood environment. The driver or pedestrian entering Riverside will see not only an edge, a district and some landmarks, but rather he will see them in relationship to each other, not as isolated elements.

Design Framework

As a part of the continuing planning process for Riverside Neighborhood and to aid the environmental design committee and others in making development decisions, a general design framework is needed. This design framework would aid in:

- .. avoiding outright ugliness and a chaotic, non-human environment;
- .. providing diversity, safety, efficiency, and a sense of belonging;
- .. harmonizing natural and man-made forms in a manner which projects a coherent and desirable image;
- .. giving individual designers and developers specific and meaningful guidance to their work within the over-all Neighborhood context, while not being so rigid as to result in an undesirable inhibition of creativity;

- .. inspiring creative designers to make the most of their talents, while being realistic enough to attract the confidence of farsighted developers and to persuade them to exert their energies to its fleshing out and detailing;
- .. insuring that public improvements effectively fulfill their role as an incentive for private investment;
- .. providing guidance specific enough to meet current problems and still general enough to accommodate the needs of the future.

Fortunately the Urban Design section of the Minneapolis Community Improvement Program study is nearly completed. This section of the C.I.P. will suggest a Design Process by which critical design issues can be defined, interrelated design goals determined, and appropriate design policies recommended for all neighborhoods including Riverside. The design process will also include proposals for form and image structure and such proposals will be made as the planning for Riverside Neighborhood progresses.

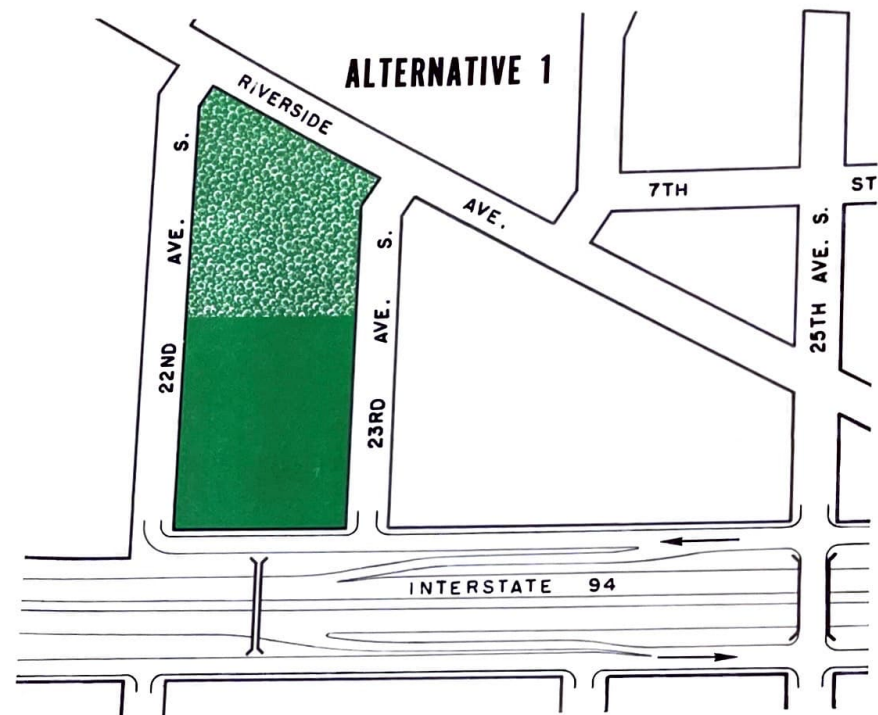
ALTERNATIVES

The Land Use and Circulation Plans recommend the most desirable pattern of development for Riverside Neighborhood. There are, however, elements of these plans for which alternative development is possible, although generally either less desirable or less feasible. To insure the widest possible consideration and discussion, several sets of alternatives are presented here.

A. Murphy Square

Alternative 1 shows the recommended location of Murphy Square. Without a relocation of Murphy Square. Without a relocation from its present site as shown in Alternative 2, which would involve a transfer of land between the Park Board and Augsburg College, the Square will, in effect, become a college park with only limited availability for use by the general public. In its present site, the Square will be bounded by freeway on the south and by the College on the other three sides and will not even be seen, let alone used, by the general public.

If it is not possible to relocate Murphy Square to the more usable site bordering Riverside Avenue as shown in Alternative 1, the Square should be improved as a college park rather than as a more general purpose park.



LEGEND

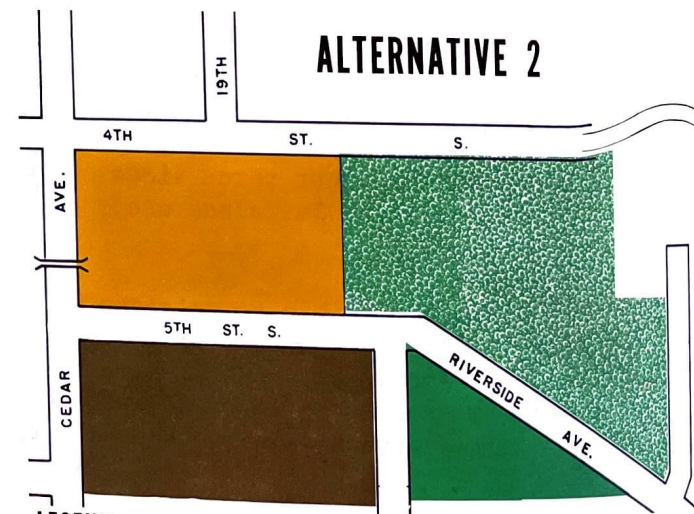
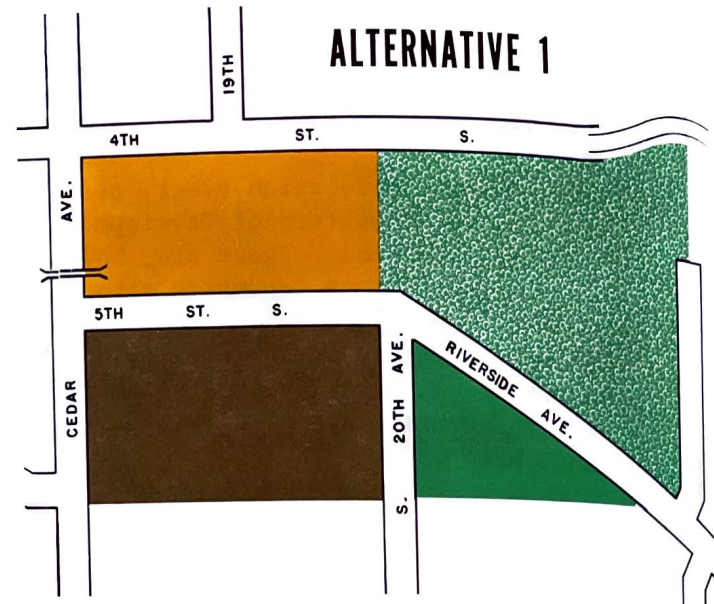
 PARK, RECREATION & OPEN SPACE
 ACADEMIC

B. Neighborhood Shopping Center

Alternative 1 shows about five and one-half acres for the neighborhood shopping center within the existing rights-of-way of Fourth and Fifth Streets, and Cedar and Twentieth Avenues. This site includes land within the presently defined University expansion area (north of present Riverside Avenue), part of which can be compensated for if the University can be persuaded to expand its western boundary to include all of the area between Cedar and Nineteenth Avenues, north of Fourth Street.

The advanced state of development plans by the University may require that the east boundary of the shopping center be moved somewhat west of Twentieth Avenue as shown in Alternative 2.

Alternative 2 shows the Fifth Street right-of-way shifted forty feet south, which compensates for the land on the east edge of the shopping center that may be required for a University building. It also reduces the length of the site, making for a more compact shopping center while still providing adequate land for 60,000 square feet of commercial space. In addition, the intersection of Twentieth with Riverside is improved. A further shift southward would provide a more nearly square site for the neighborhood shopping center.



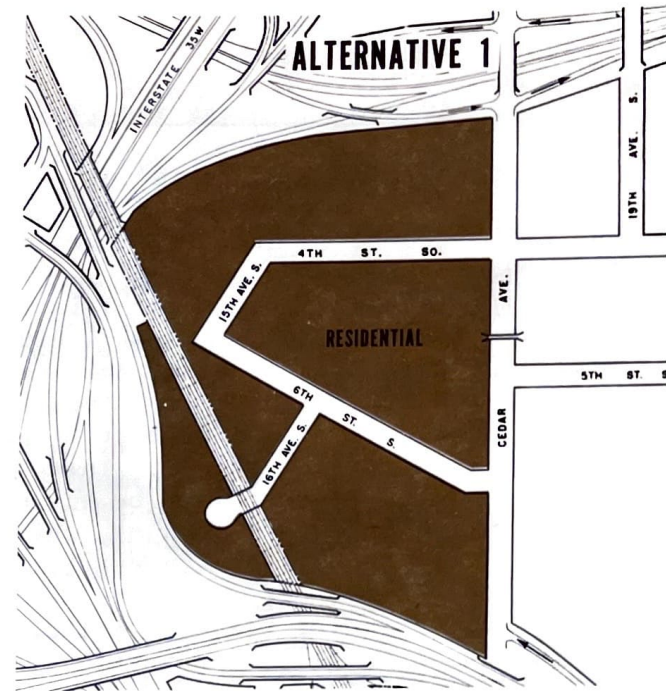
LEGEND

-  PARK, RECREATION & OPEN SPACE
-  ACADEMIC, CHURCH & HOSPITAL
-  RESIDENTIAL
-  COMMERCIAL

C. West Cedar

Alternative 1 is based on the addition of more units in the Cedar-Hi apartment complex, using what is presently Seventh Street and the narrow strip of land between it and the freeway as is shown in the second alternative. This narrow strip, about forty feet wide at Cedar Avenue, will have extremely limited development possibilities unless it can be combined with the two-block Cedar-Hi area through the closing of Seventh Street. With the closing of Seventh Street, over three acres would be added to the Cedar-Hi site.

The first alternative would require the construction of two less blocks of new street and utilities along the railroad line and would provide adequate access to West Cedar. However, if the Housing Authority is not able to use the area between the existing Cedar-Hi and the freeway, the street layout in Alternative 2 is recommended.



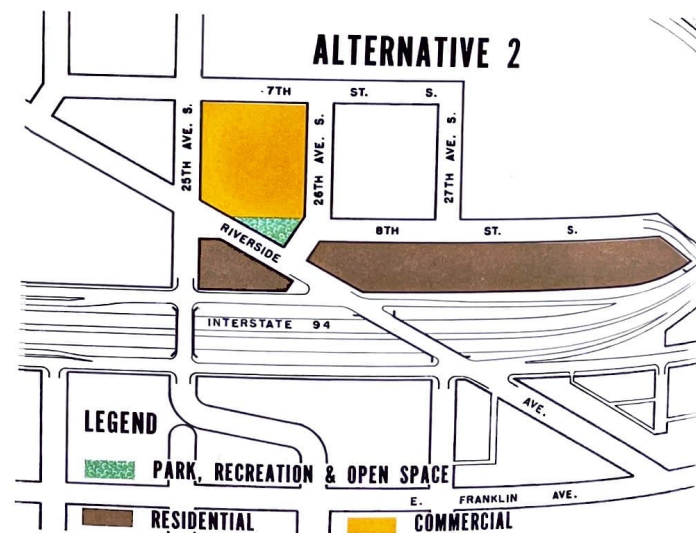
D. Riverside Avenue at Interstate 94

The first alternative, including the vacation of Riverside Avenue between Eighth Street and the north frontage road, is recommended for the reasons stated on pages 57 and 59. The most important of these reasons is that the closing of Riverside Avenue will discourage truck and auto traffic bound for the other side of the Neighborhood, for Industry Square, and for southwest and northeast Minneapolis from using Riverside Avenue. Instead, traffic moving on city streets will be encouraged to use Franklin and Cedar Avenues, while freeway traffic will tend to continue a half-mile west where it can exit at Cedar Avenue. In this way, vehicular traffic will disrupt the Neighborhood as little as possible.

The second alternative represents a less desirable development, but the best that can be expected if Riverside Avenue is not interrupted between Eighth Street and the freeway. Traffic from the southeast and east as well as from the freeway would be free to cut through the Neighborhood, adding to congestion inside the Neighborhood until this internal congestion induces some non-local traffic to bypass Riverside.

The second alternative shows a replacement of Svea Triangle with planted, open space in association with the commercial block. The major occupant of this block would probably be involved in health care, but the southerly portion could be occupied by several small businesses. These businesses could include several that would make use of the open space fronting on Riverside and Eighth Street, such as an indoor-outdoor art gallery, crafts sales, and a sidewalk cafe.

Vehicular access to these businesses would be via a parking lot on the north side of the buildings. This type of business development could also be accomplished under the first alternative.



E. Seven Corners -- West Bank Campus

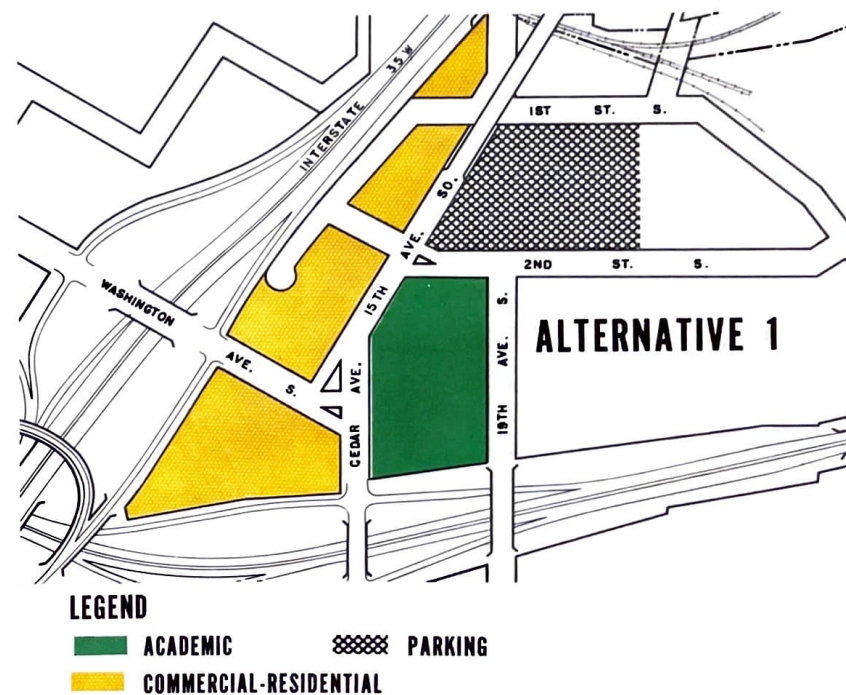
The major difference between the first and second alternatives for this area is in the modification of the present inefficient Seven Corners intersection. With the first alternative, the existing right-of-way within the intersection would remain unchanged. However, a half-block of Fifteenth Avenue, south of Washington would be closed and Washington Avenue east of Cedar would be closed to eliminate the S-jog entrance to the West Bank campus. The major entrance to the northern section of West Bank Campus would be at Second Street and Fifteenth Avenue to minimize congestion at the main entry point. Left turns from Fifteenth into Second Street should be prohibited.

With the first alternative the amount of land available for commercial-residential development is considerably reduced. The circulation system is more complicated than in Alternative 2 and it would be necessary to channel traffic by building traffic islands. It would however, provide a larger, unified area for University development between Cedar and Nineteenth Avenues.

The second alternative involves the realignment of Washington Avenue between Interstate 35W and Cedar Avenue, which would bring it directly in line with Washington Avenue east of Cedar. Traffic movement would be greatly simplified over current or Alternative 1 movements and could be controlled with one set of stoplights. Right and left turn lanes should also be provided to ease movement through this busy intersection. This alternative would also provide for a more impressive entrance to both Riverside and to the West Bank campus.

The second alternative preserves the commercial-residential area intact except for the area taken by half of the one-way pair flanking Fifteenth Avenue. Fifteenth Avenue should be median-divided to prevent left turns. Access to the northerly commercial-residential area would be via the north-bound one-way, left under the bridge, and south on the second one-way.

The third alternative is included for illustrative purposes only and shows an altered alignment of Washington Avenue that would result in only minor disturbance of existing structures while providing a nearly right angle intersection with Cedar and direct entry to the West Bank. The resulting curve in Washington Avenue is unfortunately too sharp to allow it to effectively handle the traffic that will be using this street in the future.



potential demand calls for the greatest construction of units during two periods:
 1) As soon as possible after the environment is made desirable to accommodate the present backlog. 2) Between 1975-80 after the disturbances of freeway and institutional construction have been reduced and as the institutions reach their planned growth level.

It would be possible to meet most of the potential demand by providing the number of units shown in Table II. The data indicate

TABLE II

Riverside Share of Potential Multiplex Housing Demand

	1965 Units	Increase	1970 Units	Increase	1975 Units	Increase	1980 Units
Riverside	4,110*	340	4,450	955	5,405	1,795	7,200
Minneapolis**	95,275	18,425	113,700	19,000	132,700	Unavailable	
Minneapolis-St. Paul** SMSA	173,535	43,965	217,500	45,700	263,200	Unavailable	
Riverside % of:							
Minneapolis	4.31%	2.03%	3.91%	5.02%	4.07%		
SMSA***	2.36%	0.8%	2.05%	2.08%	2.05%		

*As stated above, there are only about 1,700 non-dormitory, non-public housing units in Riverside and only 900 of these will remain after freeway and institutional construction programs are completed; therefore, the 1965 potential demand would have to be filled by new construction.

**Source of these data -- Residential Land Marketability, Larry Smith & Co., 1965.

***SMSA includes Hennepin, Ramsey, Dakota, Anoka, and Washington counties.

that even with the construction of the given number of units, the Riverside share of both the Minneapolis and the Standard Metropolitan Statistical Area potential, normal-market demand would become smaller between 1965 and 1975. It should also be emphasized that both Minneapolis and SMSA potential multiplex demand is for five-or-more-unit apartments, nothing smaller. These figures are also based upon normal market conditions, which means that they do not include unusual events such as the current tightness of the money market. Nor do they include the rebuilding of the Neighborhood during the next ten to twenty years. Even so, in 1975 at the potential rate of increase shown in Table 1, Riverside would account for only four percent of the City and two percent of the SMSA demand for multiplex housing although a larger amount of land can be made available for housing in

Riverside than is anticipated by the marketability analysis. The scarcity of residential land in Minneapolis accounted in large part for the decline of the City's share of both single and multiplex housing which is shown in the marketability analysis. In fact the marketability analysis states that Minneapolis could account for "...at least 20-35% of total metropolitan area demand" if vacant land could be made available. The only way to maintain the City share of metropolitan area housing is to make land available where higher-than-existing densities are appropriate, such as Riverside, for rebuilding at higher density.

When supported by more specific market analysis, it is recommended that not more than the number and type of units indicated in Table III be built at approximately the staging shown.

TABLE III

Number of Living Units--Potential and Actual 1965-1980

Living Units		1965	1970	1975	1980	Average No. Persons Per Living Unit
a	Efficiency	345	375	455	600	1.5
a	One-bedroom	2,155	2,335	2,840	3,800	2.33
a	Two-bedrooms	1,150	1,240	1,510	2,000	2.8
a	Three-or-more bedrooms	<u>460</u>	<u>500</u>	<u>600</u>	<u>800</u>	3.5
	Subtotal	4,110	4,450	5,405	7,200	
b	Senior Citizen	350	350	350	350	1.1
b&c	Inst. bedroom	10	250	460	650	2.33
b&c	Dormitory	<u>765</u>	<u>2,725</u>	<u>4,380</u>	<u>4,700</u>	<u>1.0</u>
	Subtotal	1,125	3,325	5,190	5,700	1.9

a-recommended, b-existing, c-planned

The data in Table III present a breakdown of living units by size and type that would be consistent with providing shelter for a heterogeneous population as requested in the Neighborhood goals statement and with the Housing section of this report.

The analysis of purchasing power presented in Appendix B is combined with the potential demand figures in Table III to provide an analysis of desirable rent levels in Riverside. Table IV presents the results of this analysis and a comparison with Minneapolis and with Minneapolis-St. Paul SMSA demand by rent level.

TABLE IV
Potential Multiplex Housing Demand by Rent Level

	1965*	Increase	1970	Increase	1975	Increase	1980
<u>Riverside</u>							
Under \$40	0	0	0	0	0	0	0
\$40-79**	0	1,718	1,718	385	2,103	737	2,840
\$80-99	0	1,095	1,095	234	1,329	424	1,753
\$100-119	0	604	604	127	731	241	972
\$120 plus	0	1,033	1,033	209	1,242	393	1,635
<u>Riverside %</u>							
<u>of: Minneapolis</u>							
Under \$40	0	0	0	0	0		
\$40-79)	0	31.2	4.1	6.1	4.3		
\$80-99)	0	15.9	3.8	3.3	3.7	Not available	
\$100-119	0	23.6	6.4	5.0	6.1		
\$120 plus	0						
<u>SMSA</u>							
Under \$40	0	0	0	0	0		
\$40-79)	0	10.9	2.1	2.3	2.1		
\$80-99)	0	7.9	2.0	1.5	1.9	Not available	
\$100-119	0	12.4	3.3	2.3	3.0		
\$120 plus	0						

* Assumption is that existing non-public and non-institutional units will be replaced.
** Lower limit of this range would actually be approximately \$60 per month.

NOTE: The Riverside figures in Table IV are based on the following estimated rent-paying ability by rental range. The income and expenditure levels are as described in Appendix B.

	Single Students*	Married Students	Other Families
Under \$40	0	0	0
\$40 - 79	60	55	5
\$80 - 99	30	35	10
\$100 - 119	10	10	20
\$120 plus	0	0	65

* Assumes two students combining rent expenditures to rent one apartment.

NOTE: Both single and married student rent expenditures are based upon year-round occupancy.

Table IV shows that Riverside would require between one-sixth and one-third of the potential City demand in 1965-70, depending upon rental range, in order to replace existing units and to meet potential demand not presently being satisfied. This would result in Riverside providing 4.1 percent of the total City multiplex units in the \$40-99 range, 3.8 percent of those in the \$100-119 range, and 6.4 percent of those renting for \$120 or more. This would reduce the gap between available housing and multiplex po-

tential; therefore, after 1970 Riverside would require a smaller proportion of City multiplex units to meet the need for housing in the Neighborhood. The same pattern holds true when Riverside is compared with SMSA demand and increase in demand.

Units renting for \$40-\$99 are below what the present market could provide. This means that various subsidies will have to be provided if the suggested number of units are to be built and rented.

APPENDIX B

Commercial Development Potential

If the areas shown as residential and institutional-residential on the Land Use Plan map are developed as recommended and as the institutions plan, Riverside Neighborhood could readily accommodate 4,700 dormitory residents, about 4,500 single students

in apartments, some 2,500 married students, and about 3,000 other families. Table I shows the estimate of average and total income after taxes, in current dollars, that might be controlled by this population.

TABLE I

Average and Total Annual Income with Recommended Development

	Average Annual Spendable Income	Total Average Annual Spendable Income
Single Dormitory Students	\$ 600*	\$ 2,820,000
Single Apartment Students	1,400	6,300,000
Married Students	3,000	7,500,000
Other Families	<u>6,000</u>	<u>18,000,000</u>
	\$ 2,355	\$34,620,000

*After tuition, text books, board and room have been paid.

Table I shows that a majority of the spendable or disposable income in Riverside would be controlled by the "other families", which would be the heterogeneous population called for in the goals statement of the Cedar-Riverside Area Council. This heterogeneous group would include retired people, faculty, administration personnel, doctors, professional workers, manufacturing employees, nurses, and others and is vital for the success of commercial activities in the Neighborhood. Any form of development which reduces the number of other families will not only defeat the goals of the Neighborhood, but will also reduce or cripple the commercial potential of Riverside. If a decrease in over-all density were desired, it would be better in terms of over-all neighborhood vitality to limit single student apartment housing rather than to reduce the amount of other family or married student housing. Each of the latter two groups tends to be composed of more stable, longer-term residents who tend to have more interest in and more income to support the Neighborhood.

The Bureau of Labor Statistics', Survey of Consumer Expenditures, Minneapolis-St. Paul, 1965, is the basis for the estimates of the proportion of after taxes income that will be expended in the various categories shown in Table 2.

TABLE II
Percentage Breakdown of Disposable Income
Expenditures by Type*

	Dorm Residents	Single Students In Apartments	Married Students	Other Families
1. Food at home	0	21	24	18
2. Food away from home	20	4	2	3
3. Tobacco and Alcoholic Beverages	7	3	4	3
4. Shelter rent	0	25	23	18
5. Shelter operations	0	7	10	10
6. House furnishings	0	1	1	6
7. Clothing	17	5	4	7
8. Personal	7	3	3	2
9. Medical	0	0	3	8
10. Recreation	30	5	3	4
11. Reading	3	1	1	2
12. Education	0	20	13	2
13. Transportation	12	4	7	14
14. Other	<u>4</u>	<u>1</u>	<u>2</u>	<u>3</u>
	100	100	100	100

*See Survey of Consumer Expenditures, Minneapolis-St. Paul, 1963, Bureau of Labor Statistics for a detailed definition of the fourteen types.

NOTE: Depending upon the type of housing, Items 4, 5, and sometimes 6 may be combined as total shelter expenditure, as for a rented, furnished apartment. Expenditures by dormitory residents or by others in their behalf for dorm contracts or tuition, which includes medical care, are not considered as disposable income. This fact, combined with the low average disposable income, gives an atypical percentage distribution for dormitory residents' expenditures.

Based upon the data in Tables I and II, the dollar breakdown of disposable income by type is shown in Table III. This table indicates that the 3,000 other families would provide

over half of the potential purchasing power for the support of neighborhood commercial facilities.

TABLE III

Dollar Breakdown of Total Disposable Income
Expenditures by Type (x1,000)

	Dorm Residents	Single Students In Apartments	Married Students	Other Families	Totals
1. Food, at home	\$ 0	\$1,323.0	\$1,800.0	\$3,240.0	\$ 6,363.0
2. Food, away from home	564.0	252.0	150.0	540.0	1,506.0
3. Tobacco & Alcoholic Beverages	197.4	189.0	300.0	540.0	1,226.4
4. Shelter rent	0	1,575.0	1,725.0	3,240.0	6,540.0
5. Shelter operations	0	441.0	750.0	1,800.0	2,991.0
6. House furnishings	0	63.0	75.0	1,080.0	1,218.0
7. Clothing	479.4	315.0	300.0	1,260.0	2,354.4
8. Personal	197.4	189.0	225.0	360.0	971.4
9. Medical	0	0	225.0	1,440.0	1,665.0
10. Recreation	846.0	315.0	225.0	720.0	2,106.0
11. Reading	84.6	63.0	75.0	360.0	582.6
12. Education	0	1,260.0	975.0	360.0	2,595.0
13. Transportation	338.4	252.0	525.0	2,520.0	3,635.4
14. Other	<u>112.8</u>	<u>63.0</u>	<u>150.0</u>	<u>540.0</u>	<u>865.8</u>
	\$ 2,820.0	\$6,300.0	\$7,500.0	\$18,000.0	\$34,620.0

The total potential expenditures by type vary from a low of \$582,600 for Reading (books, magazines, newspapers) to \$6,540,000 for Shelter rent.

In order to arrive at a reasonable estimate of the amount of money that would be spent in a convenient, competitive neighborhood center, each of the fourteen expenditure types is analyzed separately. Assuming that the necessary commercial facilities are built in the form of an attractive neighborhood center in the area adjacent to Riverside and Nineteenth Avenue, and that existing and proposed commercial development nearby is improved, a minimum of the following proportions and amounts of each type of disposable income would probably be spent at the neighborhood center:

1. Food, at home. This expenditure type accounts for the second largest portion of disposable income and includes purchases of meat, dairy products, produce, and groceries. Expenditures by or for dormitory residents for food at home are included in dorm contract payments that are not considered, for purpose of this analysis, to be disposable income. However, the other three population groups will probably spend about \$6.4 million for food to be consumed at home. Part of the food expenditure will be captured by supermarkets and groceries outside the neighborhood, including the East Hennepin, and the 27th and Franklin

areas, which will probably both be rehabilitated in the near future. However, some trade could be drawn in from other parts of the metropolitan area, particularly in the form of food purchases by people working in Riverside but living elsewhere, if the facility were convenient and competitive enough. (As an example of convenience, it might be possible to develop a supermarket in conjunction with a parking ramp in a manner that would enable people to either make a single-purpose trip to buy groceries, or combine the work trip and grocery-buying trip. After completing classes or work, one would buy groceries, go directly into the parking ramp to pick up the auto, and pick up the food purchases at a loading facility on the way out of the parking ramp.) In any event, it is reasonable to believe that at least half of the total food expenditure, or \$3.2 million, would be made in the neighborhood. This volume of expenditure would support a supermarket of 20,000 square feet with sales of \$150 per square foot per year and would also support a small amount of other activity, such as dairy produce vending machines in apartment buildings.¹

2. Food, away from home. Assuming that suitable facilities are provided, one third of the expenditures by the three resident student groups could be expected to be made in Riverside. Assuming greater mobility and wider interests, the other families might spend as little as one-fifth in the

¹All references to sales per square foot are based upon data presented in The Dollars and Cents of Shopping Centers, 1963, A Study of Receipts and Expenditures, Urban Land Institute, Washington, D.C.